

**SEARCH REQUEST FORM****Scientific and Technical Information Center**

Requester's Full Name: Greg Cantelmo Examiner #: 75777 Date: 2/9/04  
 Art Unit: 1745 Phone Number 301 571 2721 Serial Number: 101020685  
 Mail Box and Bldg/Room Location: REM 6B71 Results Format Preferred (circle): PAPER DISK E-MAIL

**If more than one search is submitted, please prioritize searches in order of need.**

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: SEE ATTACHED

Inventors (please provide full names): "

Earliest Priority Filing Date: SEE ATTACHED 12/11/01

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Oxazole

Oxazoline

ISOxazole

ISOxazoline

ISO-oxazole

ISO-oxazoline

oxazoline is  
not a polymer

non polymeric  
monomer

specific oxazoline in claims 3, 11, 16 + 17

**STAFF USE ONLY**

Searcher: EL

Searcher Phone #: \_\_\_\_\_

Searcher Location: \_\_\_\_\_

Date Searcher Picked Up: \_\_\_\_\_

Date Completed: 2-12-04

Searcher Prep & Review Time: 5

Clerical Prep Time: \_\_\_\_\_

Online Time: 05

**Type of Search**

NA Sequence (#) \_\_\_\_\_

AA Sequence (#) \_\_\_\_\_

Structure (#) (1)

Bibliographic (and)

Litigation \_\_\_\_\_

Fulltext \_\_\_\_\_

Patent Family \_\_\_\_\_

Other \_\_\_\_\_

**Vendors and cost where applicable**

STN \$ 299.11

Dialog \_\_\_\_\_

Questel/Orbit \_\_\_\_\_

Pr.Link \_\_\_\_\_

Lexis/Nexis \_\_\_\_\_

Sequence Systems \_\_\_\_\_

WWW/Internet \_\_\_\_\_

Other (specify) \_\_\_\_\_

=> file reg

FILE 'REGISTRY' ENTERED AT 10:03:58 ON 12 FEB 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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=> display history full 11-

FILE 'HCAPLUS' ENTERED AT 09:33:08 ON 12 FEB 2004  
L1 15 SEA NDZEBET ?/AU  
L2 17727 SEA ?OXAZOLIN?  
L3 1 SEA L1 AND L2  
SEL L3 1 RN

FILE 'REGISTRY' ENTERED AT 09:33:48 ON 12 FEB 2004  
L4 4 SEA (1310-58-3/BI OR 30969-75-6/BI OR 7440-66-6/BI OR  
95706-86-8/BI)  
D L4 1-4 IDE  
SEL L4 1 RN  
L5 1 SEA 95706-86-8/BI

FILE 'HCA' ENTERED AT 09:34:56 ON 12 FEB 2004  
L6 5 SEA L5

FILE 'REGISTRY' ENTERED AT 09:35:28 ON 12 FEB 2004  
L7 E ALKATERGE  
5 SEA ALKATERGE#

FILE 'HCA' ENTERED AT 09:36:01 ON 12 FEB 2004  
L8 74 SEA L7 OR ALKATERGE#  
L9 423047 SEA ELECTROLY?  
L10 191082 SEA BATTERY OR BATTERIES OR (ELECTROCHEM? OR ELECTROLY?  
OR GALVANI? OR PRIMARY OR SECONDARY OR WET OR DRY) (2A) (CE  
LL OR CELLS) OR WETCELL? OR DRYCELL?  
L11 QUE ELECTROD## OR ANOD## OR CATHOD##  
L12 QUE (52 OR 72)/SC,SX  
L13 6 SEA L8 AND (L9 OR L10 OR L11 OR L12)

FILE 'LREGISTRY' ENTERED AT 09:41:14 ON 12 FEB 2004  
L14 STR

FILE 'REGISTRY' ENTERED AT 09:43:17 ON 12 FEB 2004  
L15 23 S L14  
L16 STR L14  
L17 14 SEA SSS SAM L16  
L18 STR L16

L19 7 SEA SSS SAM L18  
 L20 2125 SEA SSS FUL L18  
 SAV L20 CAN685/A  
 L21 1 SEA L20 AND L4

FILE 'HCA' ENTERED AT 09:55:00 ON 12 FEB 2004

L22 1658 SEA L20  
 L23 390344 SEA (SURFACT? OR BIOSURFACT? OR HYDROTROP? OR DETERG? OR  
 ABSTERG? OR (SURFACE(W)ACTIVE# OR WETTING#) (A) (AGENT? OR  
 ADDITIVE? OR COMPOUND? OR COMPD# OR CMPD# OR CPD#) OR  
 EMULSIFIER? OR DISPERSANT? OR SOAP?)/BI,AB  
 L24 25 SEA L22 AND (L9 OR L10 OR L11 OR L12)  
 L25 4 SEA L24 AND L23  
 L26 483471 SEA GEL OR GELS OR GELLED OR GELLING# OR GELATION?  
 L27 3 SEA L24 AND L26

FILE 'REGISTRY' ENTERED AT 09:59:27 ON 12 FEB 2004

E ZINC/CN  
 L28 1 SEA ZINC/CN  
 E POTASSIUM HYDROXIDE/CN  
 L29 1 S E3

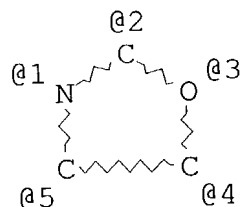
FILE 'HCA' ENTERED AT 10:01:12 ON 12 FEB 2004

L30 552954 SEA L28 OR ZINC#  
 L31 182289 SEA L29 OR (POTASSIUM# OR K) (W)HYDROXIDE# OR KOH OR  
 POTASH# OR CAUSTIC? OR ENCAUSTIC?  
 L32 4 SEA L24 AND L30  
 L33 3 SEA L24 AND L31  
 L34 18 SEA L6 OR L13 OR L25 OR L27 OR L32 OR L33  
 L35 16 SEA L24 NOT L34

FILE 'REGISTRY' ENTERED AT 10:03:58 ON 12 FEB 2004

=> d l20 que stat

L18 STR



Ak @8

VPA 8-2/3/4/5/1 U

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 8

DEFAULT MLEVEL IS ATOM

GGCAT IS SAT AT 8  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS M6 C AT 8

GRAPH ATTRIBUTES:  
RSPEC I  
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE  
L20 2125 SEA FILE=REGISTRY SSS FUL L18

100.0% PROCESSED 188988 ITERATIONS  
SEARCH TIME: 00.00.04

2125 ANSWERS

=> file hca  
FILE 'HCA' ENTERED AT 10:04:25 ON 12 FEB 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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=> d 134 1-18 cbib abs hitstr hitind

L34 ANSWER 1 OF 18 HCA COPYRIGHT 2004 ACS on STN  
139:24150 Oxazoline **surfactant anode** additive for  
alkaline **electrochemical cells**. Ndzebet, Ernest  
(USA). U.S. Pat. Appl. Publ. US 2003113623 A1 20030619, 6 pp.  
(English). CODEN: USXXCO. APPLICATION: US 2001-20685 20011214.  
AB According to the present invention an alk. **electrochem.**  
**cell** can contain an **anode** having an **anode**  
active material, an alk. **electrolyte**, a **gelling**  
agent and an oxazoline **surfactant** additive. The invention  
relates to an **anode** mix, to an **anode** contg. the  
mix, and to an **electrochem. cell** contg. the  
**anode** and to methods for making the **anode** mix, the  
**anode** and the cell. Performance improvements can be  
realized when the oxazoline **surfactant** is provided in the  
**anode**, which can include increased operating voltage, good  
high rate pulse capability, elimination of initial potential dip,  
good shelf life and reduced sensitivity to open circuit rest.  
IT 1310-58-3, Potassium hydroxide (K(OH)),  
uses 7440-66-6, Zinc, uses  
(oxazoline **surfactant anode** additive for alk.  
**electrochem. cells**)  
RN 1310-58-3 HCA  
CN Potassium hydroxide (K(OH)) (9CI) (CA INDEX NAME)

Instant  
App.

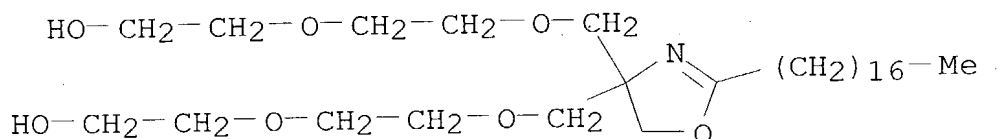
K-OH

RN 7440-66-6 HCA  
 CN Zinc (7CI, 8CI, 9CI) (CA INDEX NAME)

Zn

IT 95706-86-8, Alkaterge T-IV  
 (oxazoline surfactant anode additive for alk.  
 electrochem. cells)

RN 95706-86-8 HCA  
 CN Ethanol, 2,2'-[(2-heptadecyl-4(5H)-oxazolylidene)bis(methyleneoxy-  
 2,1-ethanediylloxy)]bis- (9CI) (CA INDEX NAME)



IC ICM H01M004-62  
 ICS H01M004-42  
 NCL 429212000; 429229000  
 CC 52-2 (Electrochemical, Radiational, and Thermal Energy  
 Technology)  
 Section cross-reference(s): 72  
 ST battery oxazoline surfactant anode  
 additive  
 IT Primary batteries  
 (Zn-air; oxazoline surfactant anode additive  
 for alk. electrochem. cells)  
 IT Battery anodes  
 Surfactants  
 (oxazoline surfactant anode additive for alk.  
 electrochem. cells)  
 IT 1310-58-3, Potassium hydroxide (K(OH)),  
 uses 7440-66-6, Zinc, uses  
 (oxazoline surfactant anode additive for alk.  
 electrochem. cells)  
 IT 30969-75-6, Oxazoline 95706-86-8, Alkaterge T-IV  
 (oxazoline surfactant anode additive for alk.  
 electrochem. cells)

Incl.  
 App

Yoshisada; Tadakuma, Yoshio; Kagawa, Okimasa (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001357896 A2 20011226, 26 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-177211 20000613.

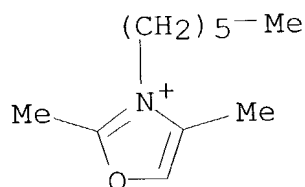
AB The title photoelec. transducer is made of microparticle semiconductor used for photoelec. cell, and its sensitivity is improved by color pigments. The prodn. of the transducer includes the process such as radiation by UV light of <400 nm, heating between 50-350°C, microwave radiation under reduced pressure of 0.05 MPa, exposing to high elec. or magnetic field, passing high elec. current, and exposing to O3 under an oxidn. or redn. atm. The device has high photoelec. conversion efficiency and high energy recovery.

IT 7440-66-6, Zinc, uses 321742-69-2  
384347-26-6 384347-27-7  
(photoelec. transducer and photoelec. cell)

RN 7440-66-6 HCA  
CN Zinc (7CI, 8CI, 9CI) (CA INDEX NAME)

Zn

RN 321742-69-2 HCA  
CN Oxazolium, 3-hexyl-2,4-dimethyl-, iodide (9CI) (CA INDEX NAME)

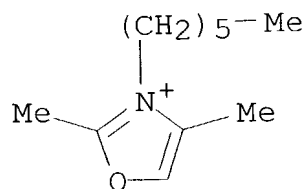


● I<sup>-</sup>

RN 384347-26-6 HCA  
CN Oxazolium, 3-hexyl-2,4-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 384347-25-5  
CMF C11 H20 N O

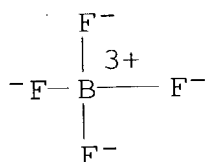


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS

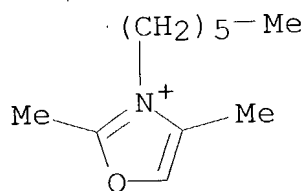


RN 384347-27-7 HCA  
 CN Oxazolium, 3-hexyl-2,4-dimethyl-, salt with 1,1,1-trifluoro-N-  
 [(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (9CI) (CA INDEX  
 NAME)

CM 1

CRN 384347-25-5

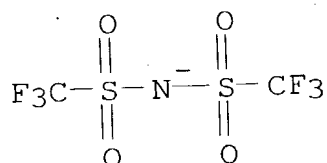
CMF C11 H20 N O



CM 2

CRN 98837-98-0

CMF C2 F6 N O4 S2



IC ICM H01M014-00  
ICS H01L031-04

CC **52-1** (Electrochemical, Radiational, and Thermal Energy Technology)  
Section cross-reference(s): 73, 76

IT Photoelectric devices  
Pigments, nonbiological  
Semiconductor materials  
Sol-gel processing

IT (photoelec. transducer and photoelec. cell)  
66-71-7D, 1,10-Phenanthroline, derivs. 119-91-5D,  
2,2'-Biquinoline, derivs. 366-18-7D, 2,2'-Bipyridine, derivs.  
493-90-3 574-93-6, Phthalocyanine 1148-79-4D,  
2,2':6',2''-Terpyridine, derivs. 1303-00-0, Gallium arsenide, uses  
1306-23-6, Cadmium sulfide, uses 1306-24-7, Cadmium selenide, uses  
1309-37-1, Ferric oxide, uses 1313-96-8, Niobia 1314-13-2,  
**Zinc** oxide, uses 1314-35-8, Tungsten oxide, uses  
1314-87-0, Lead sulfide 1314-98-3, **Zinc** sulfide, uses  
1332-29-2, Tin oxide 1345-07-9, Bismuth sulfide 1702-42-7  
3026-66-2 4186-63-4 4386-78-1 6813-38-3D, [2,2'-Bipyridine]-  
4,4'-dicarboxylic acid, derivs. 7429-90-5, Aluminum, uses  
7440-06-4, Platinum, uses 7440-22-4, Silver, uses 7440-32-6,  
Titanium, uses 7440-36-0, Antimony, uses 7440-44-0, Carbon, uses  
7440-50-8, Copper, uses 7440-56-4, Germanium, uses 7440-57-5,  
Gold, uses **7440-66-6, Zinc**, uses 7440-74-6,  
Indium, uses 7491-86-3D, derivs. 9004-35-7, Acetyl cellulose  
9020-73-9, Polyethylene naphthalate 10291-06-2 12047-27-7,  
Barium titanate, uses 12049-50-2, Calcium titanate 12060-59-2,  
Strontium titanate 12063-98-8, Gallium phosphide, uses  
13311-31-4 13361-29-0 13463-67-7, Titania, uses 14354-67-7  
14494-42-9 14609-54-2 15611-43-5 22398-80-7, Indium phosphide,  
uses 25610-19-9, Polyethylene phthalate 31301-31-2D, derivs.  
35935-34-3 37268-49-8, Niobium titanium oxide 51142-87-1, Sodium  
titanate 56511-17-2 63174-72-1 65039-05-6 65039-08-9  
68714-21-6 69110-33-4D, 2,2'-Bi-1,8-naphthyridine, derivs.  
86042-82-2 93627-55-5 98093-19-7 98743-25-0, Copper indium  
selenide 99021-92-8 100149-66-4 106240-35-1 108410-41-9  
111051-46-8 121091-31-4 139068-93-2 143314-16-3 148353-34-8  
150774-86-0 174501-65-6 174899-82-2 174899-83-3 177715-14-9,  
Copper indium sulfide 199855-86-2 210230-42-5 216018-58-5D,



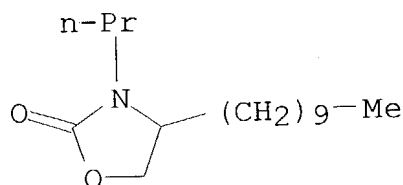
derivs. 219832-57-2 219947-97-4 223437-11-4 258279-35-5  
 258279-38-8 286453-46-1 288627-94-1 303113-36-2D, derivs.  
**321742-69-2** 321742-70-5 321742-71-6 321881-76-9  
 321881-77-0 321881-79-2 321881-80-5 321881-82-7 321881-92-9  
 321881-94-1 321881-94-1 324574-91-6 324574-95-0 324574-99-4  
 324575-08-8 324575-10-2 324757-04-2 331717-62-5 345984-11-4  
 384347-04-0 384347-05-1 384347-06-2 384347-07-3 384347-08-4  
 384347-09-5 384347-10-8 384347-12-0 384347-13-1 384347-15-3  
 384347-16-4 384347-18-6 384347-19-7 384347-21-1 384347-22-2  
 384347-23-3 384347-24-4 **384347-26-6 384347-27-7**  
 384347-29-9 384347-30-2 384347-32-4 384347-33-5 384347-34-6  
 384347-35-7 384347-36-8 384347-38-0 384347-39-1 384347-41-5  
 384347-44-8 384347-45-9 384347-46-0 384347-47-1 384347-49-3  
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 384347-73-3 384347-74-4 384347-75-5 384347-76-6 384347-78-8  
 384347-79-9 384347-80-2 384347-82-4 384347-83-5 384347-84-6  
 384347-85-7 384347-86-8

(photoelec. transducer and photoelec. cell)

- L34 ANSWER 3 OF 18 HCA COPYRIGHT 2004 ACS on STN  
 132:337421 Cyclic carbamates for extraction of precious metals. Luan,  
 Helin; Wu, Rongcheng; Yao, Wen (Beijing General Institute of Mining  
 & Metallurgy Research, Peop. Rep. China). Faming Zhuanli Shenqing  
 Gongkai Shuomingshu CN 1206048 A 19990127, 5 pp. (Chinese).  
 CODEN: CNXXEV. APPLICATION: CN 1997-115115 19970723.  
 AB The cyclic carbamates are where R1, R2, R3 = H, or C1-20 alkyl. The  
 extg. reagents can be used for extn. of precious metal (Ag, Pt, Pd)  
 ions or complex compds. from acidic aq. soln. in the presence (or  
 absence) of a diluent, and the extd. precious metal ions or  
 complexes can be readily stripped by redn. or **electrolysis**  
 and thus to regenerate the extg. reagents. The extg. reagents can  
 be used in combination with conventional extg. reagents for precious  
 metals such as Me iso-Bu ketone, dialkylthioether, sulfoxide, cyclic  
 carbonate, etc. The extg. reagents are used at 5-1,000 vol.% of the  
 aq. phase, preferably, 50-200 vol.%. The reducing agents for  
 stripping and regenerating the extg. reagents are Zn, Fe,  
 formaldehyde, and Fe2+.  
 IT **7440-66-6, Zinc, reactions 268202-81-9**  
 (cyclic carbamates for extn. of precious metals)  
 RN 7440-66-6 HCA  
 CN Zinc (7CI, 8CI, 9CI) (CA INDEX NAME)

Zn

RN 268202-81-9 HCA  
 CN 2-Oxazolidinone, 4-decyl-3-propyl- (9CI) (CA INDEX NAME)



IC ICM C22B003-36  
 CC 54-2 (Extractive Metallurgy)  
 IT 50-00-0, Formaldehyde, reactions 108-10-1, Methyl isobutyl ketone  
 120-62-7, Sulfoxide 7439-89-6, Iron, reactions 7440-66-6  
 , Zinc, reactions 15438-31-0, Iron, ion (Fe<sup>2+</sup>),  
 reactions 51667-26-6, Oxazolidinone 57272-09-0 268202-80-8  
 268202-81-9  
 (cyclic carbamates for extn. of precious metals)

L34 ANSWER 4 OF 18 HCA COPYRIGHT 2004 ACS on STN

132:154439 **Gel electrolytes, gel electrolytes** for photoelectrochemical cells, and the cells. Takizawa, Hiroo (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000058140 A2 20000225, 39 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-239481 19980811.

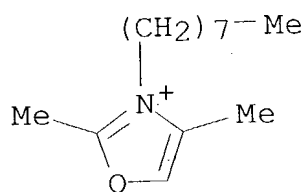
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The **gel electrolytes** contain  $\geq 50\%$  **electrolyte I** (Z forms a 5- or 6-membered ring arom. cation with N, R<sub>1</sub> = alkyl or alkenyl group, p = 1 or 3) having mol. wt.  $\leq 1000$ , preferably II (R<sub>2</sub> = substituents, q  $\geq 2$ ) or III (R<sub>3</sub> = substituents, E = O, S, or NR<sub>4</sub>, R<sub>4</sub> = substituents, m = 0-3, and R<sub>3</sub> are not necessarily all the same for m  $\geq 2$ ).

IT 258273-68-6  
 (gel electrolytes for photoelectrochem. cells)

RN 258273-68-6 HCA  
 CN Oxazolium, 2,4-dimethyl-3-octyl-, iodide (9CI) (CA INDEX NAME)



● I<sup>-</sup>

- IC ICM H01M014-00  
ICS H01L031-04
- CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
- ST photoelectrochem cell gel electrolyte;  
pyridinium salt photoelectrochem cell gel  
electrolyte; arom ammonium salt photoelectrochem  
cell gel electrolyte
- IT Electrolytes  
Photoelectrochemical cells  
(gelling agents for electrolytes in  
photoelectrochem. cells)
- IT 75-05-8, Acetonitrile, uses 4743-28-6 10123-62-3 19836-78-3  
(comps. of gel electrolytes for  
photoelectrochem. cells)
- IT 13463-67-7, Titania, uses  
(electrodes for photoelectrochem cells with  
gel electrolytes)
- IT 32353-64-3 65039-05-6 258273-67-5 258273-68-6  
(gel electrolytes for photoelectrochem.  
cells)
- IT 148417-29-2 148497-17-0 182912-85-2 183552-29-6 212840-68-1  
258273-69-7  
(gelling agents for electrolytes in  
photoelectrochem. cells)
- IT 14238-53-0 78338-26-8 80530-93-4 143169-03-3 219727-04-5  
220870-47-3 230307-81-0 233269-27-7 233584-50-4 258273-70-0  
258273-71-1  
(pigment sensitized electrodes for photoelectrochem  
cells with gel electrolytes)
- L34 ANSWER 5 OF 18 HCA COPYRIGHT 2004 ACS on STN  
129:317933 Low-residue macroemulsion cleaner with perchloroethylene.  
Mainz, Eric L.; Nyberg, Janice M. (Vulcan Materials Co., USA). U.S.  
US 5827809 A 19981027, 6 pp. (English). CODEN: USXXAM.

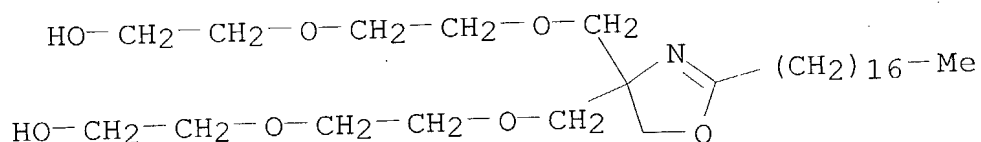
APPLICATION: US 1996-730363 19961015.

AB A stable oil-in-water macroemulsion cleaner comprises perchloroethylene (I), water, ethanol and/or Et acetate, and a nonionic surfactant, and the cleaner has low toxicity, rapid evapn. rate and leaves low residue after use. The cleaner removes greasy and oily soils from soiled surfaces, and is nonflammable as an aerosol spray with appropriate propellant formulations. Thus, a cleaner contained I 20.01, water 12.16, acetone 8.00, Tween 80 0.37, and Surfynol 61 0.02 g.

IT **95706-86-8**, Alkaterge T-IV  
(Alkaterge T-IV and Alkaterge AP 1136; low-residue macroemulsion cleaner contg. perchloroethylene and ethanol and Et acetate and nonionic surfactants and water)

RN 95706-86-8 HCA

CN Ethanol, 2,2'-[(2-heptadecyl-4(5H)-oxazolylidene)bis(methyleneoxy-2,1-ethanedioxy)]bis- (9CI) (CA INDEX NAME)



IC ICM C11D001-72

ICS C11D003-24; C11D003-20; B08B003-08

NCL 510365000

CC 45-5 (Industrial Organic Chemicals, Leather, Fats, and Waxes)  
Section cross-reference(s): 55

IT **95706-86-8**, Alkaterge T-IV

(Alkaterge T-IV and Alkaterge AP 1136; low-residue macroemulsion cleaner contg. perchloroethylene and ethanol and Et acetate and nonionic surfactants and water)

L34 ANSWER 6 OF 18 HCA COPYRIGHT 2004 ACS on STN

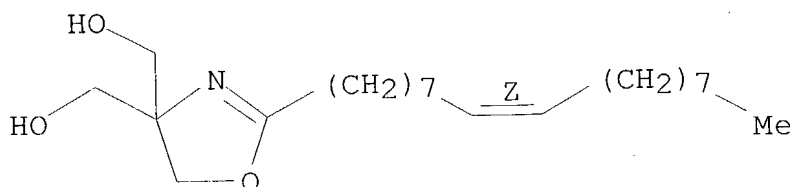
121:208055 Performance of water-in-oil emulsifiers: prediction based on interfacial and thermodynamic properties. Bhattacharyya, D. N.; Kelkar, R. Y.; Almeida, M. R.; Das, A. K.; Chikhale, S. V. (Thane, India). Tenside, Surfactants, Detergents, 31(4), 260-4 (English) 1994. CODEN: TSDEES. ISSN: 0932-3414.

AB The interfacial and thermodyn. properties of one cationic and two nonionic emulsifiers in various oil/water systems were investigated. The effectiveness of the emulsifiers in the formation and stabilization of water-in-oil (W/O) emulsions were compared. Using distd. water as the aq. phase and a blend of paraffin oil and diesel oil (50:50, wt./wt.) as the oil phase, the interfacial adsorption of the three emulsifiers was examd. at three different temps., 25, 40 and 70°. The figures for various thermodyn. parameters like change in std. free energy ( $\Delta S^\circ$ ) - both for

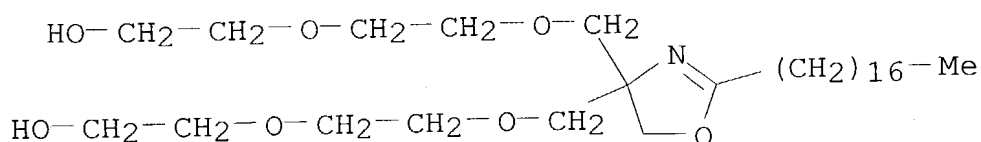
micellization and interfacial adsorption were calcd. W/O emulsions were prepd. with these emulsifiers, using an aq. phase consisting of a soln. of various **electrolytes** and the stability of the emulsions was compared. The emulsifying properties of the surfactants and the emulsion stabilization were explained in terms of interfacial and thermodyn. properties.

- IT **75499-49-9, Alkaterge T**  
 (emulsifier; interfacial and thermodyn. properties of nonionic and cationic surfactants and their emulsifying properties for oil-water systems)
- RN 75499-49-9 HCA
- CN 4,4(5H)-Oxazoledimethanol, 2-(8Z)-8-heptadecenyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



- CC 46-3 (Surface Active Agents and Detergents)  
 Section cross-reference(s): 66
- IT 1338-43-8, Sorbitan monooleate 9004-99-3, Polyethylene glycol stearate **75499-49-9, Alkaterge T**  
 (emulsifier; interfacial and thermodyn. properties of nonionic and cationic surfactants and their emulsifying properties for oil-water systems)
- L34 ANSWER 7 OF 18 HCA COPYRIGHT 2004 ACS on STN  
 121:182783 Corrosion inhibitor system for an intermediate heat transfer medium. Emerich, Dwight E.; Fix, Kathleen A. (Ashchem IP, USA). Can. Pat. Appl. CA 2104519 AA 19940303, 13 pp. (English). CODEN: CPXXEB. APPLICATION: CA 1993-2104519 19930820. PRIORITY: US 1992-939056 19920902.
- AB The improved corrosion inhibitor system includes an oxazoline for an intermediate heat transfer medium for an indirect cooling heat transfer assembly and is introduced in an amt. of 0.01-5.0 wt.%.
- IT **95706-86-8**  
 (corrosion inhibitor, for heat transfer medium)
- RN 95706-86-8 HCA
- CN Ethanol, 2,2'-[(2-heptadecyl-4(5H)-oxazolylydene)bis(methyleneoxy-2,1-ethanediyoxy)]bis- (9CI) (CA INDEX NAME)



IC ICM C23F011-10  
 ICS C09K005-02  
 CC 48-5 (Unit Operations and Processes)  
 Section cross-reference(s): 55  
 IT 14466-50-3 24448-04-2 30969-75-6D, Oxazoline, derivs.  
**95706-86-8**  
 (corrosion inhibitor, for heat transfer medium)

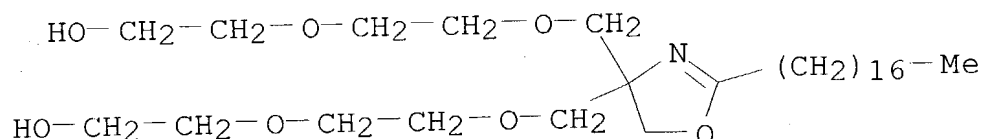
L34 ANSWER 8 OF 18 HCA COPYRIGHT 2004 ACS on STN  
 119:205268 Thermoplastic polyester elastomers containing oxazolines,  
 their manufacture and use. Plitzko, Klaus Dieter; McKee, Graham  
 Edmund (BASF A.-G., Germany). Ger. Offen. DE 4129980 A1 19930311,  
 19 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1991-4129980  
 19910910.

AB Mixts. of a thermoplastic polyester elastomer, e.g.,  
 1,4-butanediol-di-Me terephthalate-polytetramethylene glycol  
 copolymer, and an oxazoline such as Alkaterge E, Alkaterge T, or  
 2,2'-m-phenylenebis(2-oxazoline) show good melt processability and  
 are resistant to hydrolysis and thermal decompn.

IT **95706-86-8**  
 (polyester-polyoxyalkylene elastomers contg., for resistance to  
 heat and hydrolysis)

RN 95706-86-8 HCA

CN Ethanol, 2,2'-[(2-heptadecyl-4(5H)-oxazolyldiene)bis(methyleneoxy-  
 2,1-ethanediylxy)]bis- (9CI) (CA INDEX NAME)



IC ICM C08L067-02  
 ICS C08K005-353; D01F006-92  
 ICA C08J005-00; C08J005-18; H01B003-30  
 CC 39-9 (Synthetic Elastomers and Natural Rubber)  
 IT 7426-75-7, 2,2'-(1,4-Phenylene)bis(2-oxazoline) 34052-90-9,  
 2,2'-(1,3-Phenylene)bis(2-oxazoline) 75499-49-9, Alkaterge T  
 88543-32-2, Alkaterge E **95706-86-8**  
 (polyester-polyoxyalkylene elastomers contg., for resistance to  
 heat and hydrolysis)

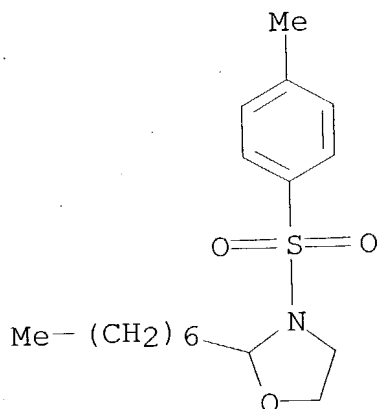
L34 ANSWER 9 OF 18 HCA COPYRIGHT 2004 ACS on STN

112:139644 Electroorganic chemistry. 120. New patterns of **anodic** oxidation of amides. Synthesis of  $\alpha$ -amino aldehyde acetals and pyrrolidines from amines. Shono, Tatsuya; Matsumura, Yoshihiro; Katoh, Susumu; Takeuchi, Kei; Sasaki, Katsushi; Kamada, Tohru; Shimizu, Rie (Fac. Eng., Kyoto Univ., Kyoto, 606, Japan). Journal of the American Chemical Society, 112(6), 2368-72 (English) 1990. CODEN: JACSAT. ISSN: 0002-7863. OTHER SOURCES: CASREACT 112:139644.

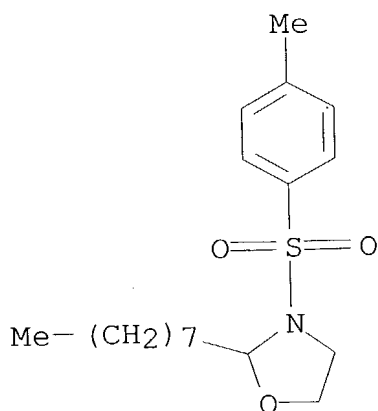
AB **Anodic** oxidn. of N-alkyltosylamides in methanol contg. KX (X = Br, I) gave two types of products.  $\alpha$ -(Tosylamino) aldehyde acetals I and pyrrolidine derivs. II, and each of the products could selectively be formed by modifying the reaction conditions when the alkyl group on the nitrogen of the tosylamides was not branched at its  $\alpha$ -position. Namely, **anodic** oxidn. of N-( $\alpha$ -branched alkyl)tosylamides III in methanol contg. NaOMe and KI at  $-10^\circ$  followed by further **anodic** oxidn. at  $+25^\circ$  afforded I in good yields; that of III in a two-layer system consisting of cyclohexane and water contg. KOH and KBr under heating yielded solely II. On the other hand, N-( $\alpha$ -branched alkyl)tosylamides gave always II. Two types of reaction routes leading to each of the products were proposed. A naturally recurring, alkaloid, sulfamine, was prepd. from L-lysine using the **anodic** method.

IT 124920-28-1P 124920-29-2P  
(prepn. and conversion of, to acetyl deriv.)

RN 124920-28-1 HCA  
CN Oxazolidine, 2-heptyl-3-[(4-methylphenyl)sulfonyl]- (9CI) (CA INDEX NAME)



RN 124920-29-2 HCA  
CN Oxazolidine, 3-[(4-methylphenyl)sulfonyl]-2-octyl- (9CI) (CA INDEX NAME)

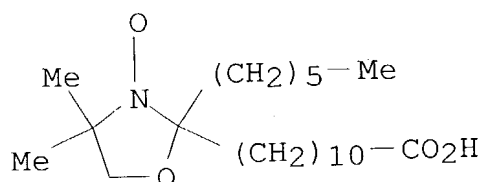


- CC 31-5 (Alkaloids)  
 Section cross-reference(s): 22, 27
- ST **anodic** oxidn amides; amino aldehyde acetal; pyrrolidine
- IT Amides, reactions  
 (N-tosyl, **anodic** oxidn. of, mechanism of)
- IT 80-39-7 1133-12-6 1143-01-7 1150-31-8 1907-65-9 65588-63-8  
 81330-00-9 87974-86-5 106011-68-1 124920-13-4  
 (**anodic** oxidn. of)
- IT 124920-26-9P 124920-27-0P  
 (prepn. and **anodic** oxidn. of)
- IT **124920-28-1P 124920-29-2P**  
 (prepn. and conversion of, to acetyl deriv.)
- L34 ANSWER 10 OF 18 HCA COPYRIGHT 2004 ACS on STN
- 111:141341 Multi-pronged in-situ characterization of adsorbed **surfactant**. Somasundaran, P.; Kunjappu, Joy T. (Langmuir Cent. Colloids Interfaces, Columbia Univ., New York, NY, 10027, USA). Innovations Mater. Process. Using Aqueous, Colloid Surf. Chem., Proc. Top. Symp., 31-51. Editor(s): Doyle, Fiona M. Miner., Met. & Mater. Soc.: Warrendale, Pa. (English) 1989. CODEN: 56NSAM.
- AB Absorption, emission, magnetic resonance, and scattering spectroscopic techniques (fluorescence, ESR, excited state resonance Raman, etc.) along with adsorption, flotation, flocculation, and electrokinetic methods were used to gather information about the microscopic properties of the adsorbed **surfactant** and polymeric films. The interaction of solids with **surfactants** and polymers (ethoxylated and **electrolyte** types) individually and in mixts. were also examd. Aside from unraveling the microstructure and evolution of the adsorbed films, new probing techniques are identified as an off-shoot of these studies.
- IT **29545-47-9**, 12-Doxylstearic acid **29545-48-0**, 5-Doxylstearic acid  
 (ESR spin probe, in **surfactant** adsorption and

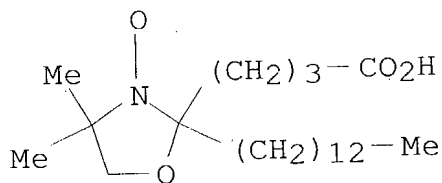


aggregation study)

RN 29545-47-9 HCA  
 CN 3-Oxazolidinyloxy, 2-(10-carboxydecyl)-2-hexyl-4,4-dimethyl- (8CI, 9CI) (CA INDEX NAME)



RN 29545-48-0 HCA  
 CN 3-Oxazolidinyloxy, 2-(3-carboxypropyl)-4,4-dimethyl-2-tridecyl- (8CI, 9CI) (CA INDEX NAME)



CC 66-4 (Surface Chemistry and Colloids)  
 Section cross-reference(s): 54, 73, 77  
 ST luminescence spectrometry colloid adsorbed **surfactant**;  
 flocculation **surfactant** adsorption ESR; ESR flocculation;  
 polymer **surfactant** solid colloid interaction  
 IT Adsorption  
 (of **surfactants**, on colloid particles, spectral methods  
 for study of)  
 IT Electron spin resonance spectrometry  
 Luminescence spectrometry  
 Raman spectrometry  
 (**surfactant** adsorption on colloidal solid studied by)  
 IT 29545-47-9, 12-Doxylstearic acid 29545-48-0,  
 5-Doxylstearic acid 53034-38-1, 16-Doxylstearic acid  
 (ESR spin probe, in **surfactant** adsorption and  
 aggregation study)  
 IT 1344-28-1, Alumina, properties  
 (colloid dispersion, **surfactant** adsorption on, spectral  
 methods in study of)  
 IT 129-00-0, Pyrene, uses and miscellaneous  
 (fluorescence probe, in **surfactant** adsorption and  
 aggregation study)  
 IT 14564-86-4

(fluorescence probe, in **surfactant** adsorption and aggregation study)  
 IT 14323-06-9, Tris(2,2'-bipyridine)ruthenium(2+) dichloride  
 (phosphorescence probe, in **surfactant** adsorption and aggregation study)

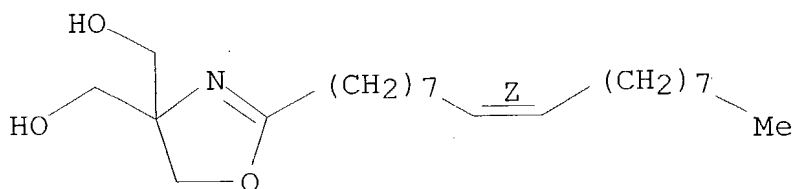
L34 ANSWER 11 OF 18 HCA COPYRIGHT 2004 ACS on STN  
 110:25762 Adsorption behavior of surfactants: critical micelle concentration and adsorption parameters of some nonionic/cationic surfactants and factors affecting them. Bhattacharyya, D. N.; Kelkar, R. Y.; Chikhale, S. V. (Maharashtra, Italy). Tenside, Surfactants, Detergents, 25(5), 298-301 (English) 1988. CODEN: TSDEES. ISSN: 0932-3414.

AB The crit. micelle concn., interfacial tension at this value, and Gibbs' adsorption parameters for sorbitan monooleate, **Alkaterge T**, and polyethylene glycol 12-hydroxystearate were detd. The effects of temp., **electrolyte** concn., and oil polarity on these parameters were correlated with the emulsifying properties of these surfactants. The nature of the **electrolyte**/ionic concn. of the aq. phase as well as the polarity of the oil phase had a significant influence of the interfacial properties and adsorption behavior of the emulsifying agents, while the temp. effect was less marked.

IT 75499-49-9, **Alkaterge T**  
 (adsorption and interfacial properties of, emulsifying behavior in relation to)

RN 75499-49-9 HCA  
 CN 4,4(5H)-Oxazoledimethanol, 2-(8Z)-8-heptadecenyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



CC 46-4 (Surface Active Agents and Detergents)  
 IT 1338-43-8, Sorbitan monooleate 61909-81-7 75499-49-9,  
**Alkaterge T**

(adsorption and interfacial properties of, emulsifying behavior in relation to)

L34 ANSWER 12 OF 18 HCA COPYRIGHT 2004 ACS on STN  
 109:152957 Soluble oil concentrate and emulsifier system used therein.

Durr, Albert M., Jr.; Hardy, Bryant J. (Conoco, Inc., USA). U.S. US 4758374 A 19880719, 5 pp. (English). CODEN: USXXAM. APPLICATION: US 1987-26509 19870317.

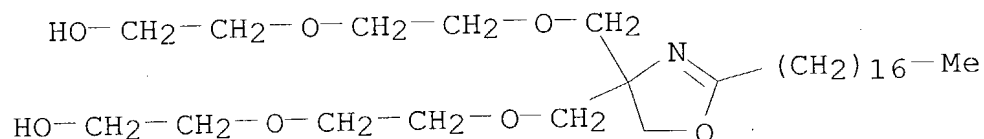
AB A sol. oil conc. which forms stable emulsions with water (e.g., useful as hydraulic fluids for coal-mine roof jacks) is prepd. by combining an emulsifier system contg. (a) an oxazoline deriv. and an amide and (b) an ether sulfate ammonium salt surfactant with a base oil. The oxazoline deriv. and amide contain straight or branched chain alc. and fatty acid substituents. The ether sulfate ammonium salt contains a mixt. of alkyl groups. Thus, a formulation contg. paraffin base oil 81.5, Penreco Morco sol. oil base 17.0, Alkaterge T-IV (oxazoline derivs.) 0.5, and Stepsol CA 207 (ether sulfate ammonium salt) 1.0 wt.% was subjected to the skin test, rust test, and emulsion sepn. test, resulting in no skin formation, passing both rust test (at 3% and 5% soln.), and retaining 69% emulsion at 158°F after 1 wk.

IT 95706-86-8

(aq. emulsions contg. ether sulfate ammonium salt and, for coal-mine roof jacks)

RN 95706-86-8 HCA

CN Ethanol, 2,2'-[(2-heptadecyl-4(5H)-oxazolyldiene)bis(methyleneoxy-2,1-ethanediylloxy)]bis- (9CI) (CA INDEX NAME)



IC ICM B01J013-00

NCL 252312000

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)

IT 95706-86-8

(aq. emulsions contg. ether sulfate ammonium salt and, for coal-mine roof jacks)

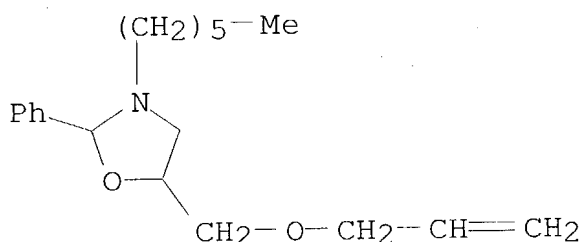
L34 ANSWER 13 OF 18 HCA COPYRIGHT 2004 ACS on STN

101:131739 Cationic epoxy resin ester. Paar, Willibald; Hoenig, Helmut (Vianova Kunstharz A.-G., Austria). Ger. Offen. DE 3337154 A1 19840510, 22 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1983-3337154 19831012. PRIORITY: AT 1982-4035 19821105.

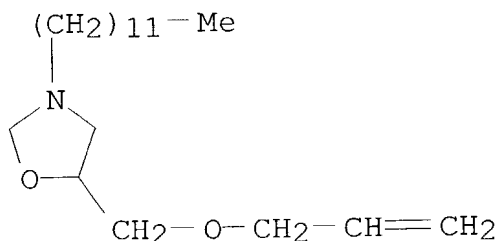
AB The esters, useful as binders for **cathodic** coatings, are manufd. by reaction of epoxy resins with a combination of half-esters, Et<sub>2</sub>NH and (or) dimethylaminopropylamine (I), and carboxy group-contg. reaction products of diacid anhydrides and N-substituted oxazolidines or N-substituted tetrahydrooxazines. Thus, hexylamine [111-26-2] 101, allyl glycidyl ether [106-92-3] 114, and PhCHO [100-52-7] 106 parts were reacted 1 h at 110°

to give an oxazolidine deriv., which was reacted (303 parts with 114 parts glutaric anhydride at 80° to give an adduct (A). Epoxy resin 900, A 542, mono-Me phthalate 144, Et<sub>2</sub>NH 22, and I 31 g were heated at 75-80° in ethylene glycol mono-Et ether until the acid no. decreased to <3 mg KOH/g to give a product with amine value 75 KOH/g, which could be made sol. in water by heating with HOAc for 3 h at 50-70°.

IT 92001-97-3DP, reaction products with diacid anhydrides and half-esters and epoxy resins 92001-99-5DP, reaction products with diacid anhydrides and half-esters and epoxy resins (prepn. of)  
 RN 92001-97-3 HCA  
 CN Oxazolidine, 3-hexyl-2-phenyl-5-[(2-propenyloxy)methyl]- (9CI) (CA INDEX NAME)



RN 92001-99-5 HCA  
 CN Oxazolidine, 3-dodecyl-5-[(2-propenyloxy)methyl]- (9CI) (CA INDEX NAME)



IC C08G059-14; C08G059-16; C08G059-50  
 CC 37-3 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 42  
 ST cationic epoxy resin ester; **cathodic** coating binder epoxy ester; oxazolidine contg epoxy resin ester; hydrooxazine contg epoxy resin ester; aminated epoxy resin ester; phthalate epoxy resin cationic; glutaric epoxy resin cationic  
 IT Coating materials  
 (**cathodic**, binders for, cationic epoxy resin esters for, manuf. of)  
 IT 85-42-7DP, reaction products with cyclic tertiary amines and epoxy

resins and half-esters 85-43-8DP, reaction products with cyclic tertiary amines and epoxy resins and half-esters 85-44-9DP, reaction products with cyclic tertiary amines and epoxy resins and half-esters 100-52-7DP, reaction products with butylamine and Cardura E 108-30-5DP, reaction products with cyclic tertiary amines and epoxy resins and half-esters 108-31-6DP, reaction products with cyclic tertiary amines and epoxy resins and half-esters 108-55-4DP, reaction products with cyclic tertiary amines and epoxy resins and half-esters 109-55-7DP, reaction products with epoxy resins and diacid anhydrides and cyclic tertiary amines 109-73-9DP, reaction products with benzaldehyde and Cardura E 109-89-7DP, reaction products with epoxy resins and diacid anhydrides and cyclic tertiary amines 131-70-4DP, reaction products with diacid anhydrides and cyclic tertiary amines and epoxy resins 925-21-3DP, reaction products with diacid anhydrides and cyclic tertiary amines and epoxy resins 1070-34-4DP, reaction products with diacid anhydrides and cyclic tertiary amines and epoxy resins 1630-62-2DP, reaction products with diacid anhydrides and half-esters and epoxy resins 1630-73-5DP, reaction products with diacid anhydrides and half-esters and epoxy resins 4376-18-5DP, reaction products with diacid anhydrides and cyclic tertiary amines and epoxy resins 4376-20-9DP, reaction products with diacid anhydrides and cyclic tertiary amines and epoxy resins 7423-42-9DP, reaction products with diacid anhydrides and cyclic tertiary amines and epoxy resins 19201-36-6DP, reaction products with diacid anhydrides and cyclic tertiary amines and epoxy resins 20882-04-6DP, reaction products with diacid anhydrides and cyclic tertiary amines and epoxy resins 56124-48-2DP, reaction products with diacid anhydrides and cyclic tertiary amines and epoxy resins 64680-77-9DP, reaction products with diacid anhydrides and cyclic tertiary amines and epoxy resins 68186-31-2DP, reaction products with diacid anhydrides and cyclic tertiary amines and epoxy resins 70559-03-4DP, reaction products with diacid anhydrides and cyclic tertiary amines and epoxy resins 92001-93-9DP, reaction products with diacid anhydrides and half-esters and epoxy resins 92001-94-0DP, reaction products with diacid anhydrides and half-esters and epoxy resins 92001-95-1DP, reaction products with diacid anhydrides and half-esters and epoxy resins 92001-96-2DP, reaction products with diacid anhydrides and half-esters and epoxy resins 92001-97-3DP, reaction products with diacid anhydrides and half-esters and epoxy resins 92001-98-4DP, reaction products with diacid anhydrides and half-esters and epoxy resins 92001-99-5DP, reaction products with diacid anhydrides and half-esters and epoxy resins 92002-00-1DP, reaction products with diacid anhydrides and half-esters and epoxy resins 92002-01-2DP, reaction products with diacid anhydrides and half-esters and epoxy resins 92004-69-8DP, reaction products with diacid anhydrides and half-esters and epoxy resins 92004-70-1DP, reaction products with

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 resins 92004-72-3DP, reaction products with diacid anhydrides and  
 half-esters and epoxy resins 92004-73-4DP, reaction products with  
 diacid anhydrides and half-esters and epoxy resins 92049-43-9DP,  
 reaction products with diacid anhydrides and half-esters and epoxy  
 resins

(prepn. of)

L34 ANSWER 14 OF 18 HCA COPYRIGHT 2004 ACS on STN

92:60287 Process for drying water-wet porous materials. (du Pont de  
 Nemours, E. I., and Co., USA). Brit. GB 1548985 19790718, 15 pp.  
 (English). CODEN: BRXXAA. APPLICATION: GB 1976-21873 19760526.

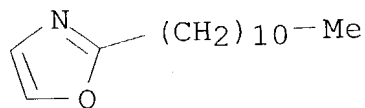
AB Water-wet porous materials, e.g. textile fibers or lead-lead oxide  
**battery electrodes**, were dried with low energy  
 consumption by forcing through the material a water-immiscible org.  
 soln. of a **surfactant** with interfacial tension vs. H<sub>2</sub>O of  
 <10 dyne/cm, d. >1.25 g/cm<sup>3</sup>, and a pos. advancing tension vs. Pt.  
 Thus, a 2-in.-wide piece of poly(ethylene terephthalate) double-knit  
 fabric contg. 55% water was passed at 2 yd/min through a  
 displacement bath of Cl<sub>2</sub>FCCF<sub>2</sub>Cl [76-13-1] contg. 0.064% partially  
 unsatd. 1-(2-hydroxyethyl)-2-heptadecyl-2-imidazoline oleate  
**surfactant** 0.5 in. above 5 successive spray tubes at right  
 angles to the direction of travel, each tube having 16  
 0.02-in.-diam. jets. The jet pressure was sufficient to force some  
 displacement liquor through the fabric. The final water content was  
 1.5%.

IT 72537-32-7

(**surfactants**, drying agents, with haloalkanes, for  
 textile fibers)

RN 72537-32-7 HCA

CN Oxazole, 2-undecyl- (9CI) (CA INDEX NAME)



IC B01D012-00

CC 39-9 (Textiles)

Section cross-reference(s): 52

ST fiber textile drying agent; haloalkane **surfactant** drying  
 textile; water removal textile fiber; displacement water porous  
 material; lead **battery electrode** drying

IT **Surfactants**

(drying agents contg. haloalkanes and, for textile fibers)

IT Hair

Textiles

Acrylic fibers, uses and miscellaneous  
 Polyamide fibers, uses and miscellaneous  
 Polyester fibers, uses and miscellaneous  
 (drying of, by perhaloalkanes contg. **surfactants**)

IT Drying agents  
 (perhaloalkanes contg. **surfactants**, for textile fibers)

IT Quaternary ammonium compounds, compounds  
 (polypropylene glycol derivs., **surfactants**, drying  
 agents, with haloalkanes, for textile fibers)

IT **Electrodes**  
 (**battery**, lead-lead oxide, drying of porous, by  
 perhaloalkanes contg. **surfactants**)

IT Alkanes, uses and miscellaneous  
 (halo, drying agents contg. **surfactants** and, for  
 textile fibers).

IT 71-55-6 75-69-4 76-13-1 79-01-6, uses and miscellaneous  
 127-18-4, uses and miscellaneous  
 (drying agents, with **surfactants**, for textile fibers)

IT 1335-25-7 7439-92-1, uses and miscellaneous  
 (**electrodes**, for **batteries**, drying of, by  
 perhaloalkanes contg. **surfactants**)

IT 102-60-3D, dioleated and quaternized 107-15-3D, unsatd. C17  
 derivs., stearates 124-30-1 140-72-7 143-27-1 2136-72-3  
 2673-22-5 9003-11-6 15567-28-9 16057-43-5 17701-04-1  
 25155-19-5D, alkyl derivs., sodium salts 25322-69-4D, quaternary  
 ammonium derivs. 72537-30-5D, partially unsatd. 72537-31-6  
**72537-32-7**

<-----User Break----->

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 COMMAND INTERRUPTED  
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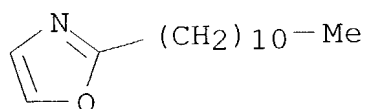
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FILE LAST UPDATED: 5 Feb 2004 (20040205/ED)

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=> d 134 14-18 cbib abs hitstr hitind

L34 ANSWER 14 OF 18 HCA COPYRIGHT 2004 ACS on STN  
92:60287 Process for drying water-wet porous materials. (du Pont de Nemours, E. I., and Co., USA). Brit. GB 1548985 19790718, 15 pp. (English). CODEN: BRXXAA. APPLICATION: GB 1976-21873 19760526.  
AB Water-wet porous materials, e.g. textile fibers or lead-lead oxide **battery electrodes**, were dried with low energy consumption by forcing through the material a water-immiscible org. soln. of a **surfactant** with interfacial tension vs. H<sub>2</sub>O of <10 dyne/cm, d. >1.25 g/cm<sup>3</sup>, and a pos. advancing tension vs. Pt. Thus, a 2-in.-wide piece of poly(ethylene terephthalate) double-knit fabric contg. 55% water was passed at 2 yd/min through a displacement bath of Cl<sub>2</sub>FCCF<sub>2</sub>Cl [76-13-1] contg. 0.064% partially unsatd. 1-(2-hydroxyethyl)-2-heptadecyl-2-imidazoline oleate **surfactant** 0.5 in. above 5 successive spray tubes at right angles to the direction of travel, each tube having 16 0.02-in.-diam. jets. The jet pressure was sufficient to force some displacement liquor through the fabric. The final water content was 1.5%.  
IT 72537-32-7  
(**surfactants**, drying agents, with haloalkanes, for textile fibers)  
RN 72537-32-7 HCA  
CN Oxazole, 2-undecyl- (9CI) (CA INDEX NAME)





- IC B01D012-00  
 CC 39-9 (Textiles)  
 Section cross-reference(s): 52  
 ST fiber textile drying agent; haloalkane **surfactant** drying textile; water removal textile fiber; displacement water porous material; lead **battery electrode** drying  
 IT **Surfactants**  
     (drying agents contg. haloalkanes and, for textile fibers)  
 IT Hair  
     Textiles  
     Acrylic fibers, uses and miscellaneous  
     Polyamide fibers, uses and miscellaneous  
     Polyester fibers, uses and miscellaneous  
     (drying of, by perhaloalkanes contg. **surfactants**)  
 IT Drying agents  
     (perhaloalkanes contg. **surfactants**, for textile fibers)  
 IT Quaternary ammonium compounds, compounds  
     (polypropylene glycol derivs., **surfactants**, drying agents, with haloalkanes, for textile fibers)  
 IT **Electrodes**  
     (**battery**, lead-lead oxide, drying of porous, by perhaloalkanes contg. **surfactants**)  
 IT Alkanes, uses and miscellaneous  
     (halo, drying agents contg. **surfactants** and, for textile fibers)  
 IT 71-55-6 75-69-4 76-13-1 79-01-6, uses and miscellaneous  
     127-18-4, uses and miscellaneous  
     (drying agents, with **surfactants**, for textile fibers)  
 IT 1335-25-7 7439-92-1, uses and miscellaneous  
     (**electrodes**, for **batteries**, drying of, by perhaloalkanes contg. **surfactants**)  
 IT 102-60-3D, dioleated and quaternized 107-15-3D, unsatd. C17  
     derivs., stearates 124-30-1 140-72-7 143-27-1 2136-72-3  
     2673-22-5 9003-11-6 15567-28-9 16057-43-5 17701-04-1  
     25155-19-5D, alkyl derivs., sodium salts 25322-69-4D, quaternary  
     ammonium derivs. 72537-30-5D, partially unsatd. 72537-31-6  
     72537-32-7  
     (**surfactants**, drying agents, with haloalkanes, for textile fibers)

Scala, Luciano C. (Westinghouse Electric Corp.). Ger. Offen. DE 2111796 19711007, 22 pp. (German). CODEN: GWXXBX. PRIORITY: US 19700312.

AB **Separators** for alk. AgO/Zn secondary **batteries**, impermeable towards Ag ions, on which Ag does not deposit, and on which dendrites do not form, consisted of a polypropylene support coated with polysulfone P 1700 contg. inorg. filler parts in its pores. Thus, 20-50 mesh particle size ZrO<sub>2</sub> 720, polysulfone P 1700 and AcNMe<sub>2</sub> 1840, and substituted oxazoline wetting agent ( **Alkaterge E**) 9.6 g were mixed for 5 days to give a homogeneous bath. A 30.5 cm wide and 0.08:9 mm thick polypropylene fiber fleece tape was coated with the above bath, extd. with a 1:4 H<sub>2</sub>O-1,4-dioxane soln., and heated at 75-80° and 1.8 m tape velocity/min to give a flexible material for separators for **batteries**. The separators had .apprx. 10% wt. loss and .apprx. 50 Ω-cm resistivity on sterilization for 60 hr at 135° in 40% KOH (100 Ω-cm resistivity before sterilization). They showed <4 ppm Ag ion diffusion in satd. KOH-Ag salt solns. and ≤4.2 ppm zincate ion diffusion in 40% KOH-40% KOH contg. 40 ppm zincate ion solns.

IC H01M

CC 77 (Electrochemistry)

ST separator secondary **battery**; polysulfone separator **battery**; zirconium oxide separator **battery**

IT **Batteries**, secondary

(separators, polysulfone-zirconium oxide-coated polypropylene for silver-zinc)

IT 1314-20-1, uses and miscellaneous 1314-23-4, uses and miscellaneous 13463-67-7, uses and miscellaneous 18282-10-5 (**battery** separators contg.)

IT 25135-51-7

(**battery** separators contg. Polysulfone P 1700)

IT 9003-07-0, uses and miscellaneous

(**battery** separators, coated with polysulfone and zirconium oxide)

L34 ANSWER 16 OF 18 HCA COPYRIGHT 2004 ACS on STN

71:62370 Protective localized area resin coatings for electroplating. Levinos, Steven (GAF Corp.). U.S. US 3451902 19690624, 3 pp. Continuation-in-part of U.S. 3390061 (English). CODEN: USXXAM. APPLICATION: US 1966-562466 19660705.

AB Continuation-in-part of U.S. 3,390,061 (CA 69: 37217b). An acrylic resin, e.g. Carboset 525, prepd. from 1-20% acrylic acid and 80-99% of a mixt. of acrylates, such as Me, Et, or Bu acrylate, is used as a protective coating on Al sheets when the sheets are coated with Cu or Cr in an electroplating bath. The resin coating prevents deposition of any metal on the resin or on the resin-coated areas of the Al sheet, but the resin is easily removed with an alk. soln.

following electroplating. Known resin coatings permit deposition of some Cu or Cr during electroplating and are difficult to remove from the Al. Thus, an Al plate was dipped in NaOH soln. to remove oxides, coated (5 ml./ft.<sup>2</sup>) on 1 side with a mixt. of Carboset 525 98, **Alkaterge** A surfactant (1% in iso-PrOH) 1, and oleic acid wetting agent (2% in iso-PrOH) 1%, dried for 15-20 min., and immersed as the **cathode** (Cu **anode**) in an aq. electroplating bath (1 l.) contg. 200 g. CuSO<sub>4</sub> and 70 g. H<sub>2</sub>SO<sub>4</sub> at 85-90°F. The c.d. was 30 amp./ft.<sup>2</sup> After 3 min., a Cu coating had formed on the side of the Al sheet contg. no resin. The resin coating was then washed off with an NH<sub>4</sub>OH soln. (pH 7.8).

IC C23B

NCL 204015000

CC 42 (Coatings, Inks, and Related Products)

L34 ANSWER 17 OF 18 HCA COPYRIGHT 2004 ACS on STN

69:37217 Protective localized area resin coatings for electroplating. Levinos, Steven (General Aniline and Film Corp.). U.S. US 3390061 19680625, 3 pp. (English). CODEN: USXXAM. APPLICATION: US 1966-543070 19660418.

AB An oxide-free Al sheet **cathode** is coated over a localized area with a protective, strongly bonded, acrylic resin film which is impervious to the acidic **electrolyte** and can be removed by an alk. soln. after the sheet is plated with Cu or Cr. Thus, an Al plate, rendered oxide-free by dipping in NaOH, was flow coated on one surface, at 5 cc./ft.<sup>2</sup>, with a mixt. contg. 98 parts of a 0.75% soln. of Carboset 525 in iso-PrOH (I), 1 part of a 1% soln. of **Alkaterge** A in I, and 1 part of a 2% soln. of oleic acid in I and dried for 15-20 min. The plate acted as a **cathode** in a plating bath contg. 200 g. CuSO<sub>4</sub>.5H<sub>2</sub>O, 70 g. H<sub>2</sub>SO<sub>4</sub>, and 1 l. H<sub>2</sub>O, with a Cu **anode**, operated at an **anode** and **cathode** c.d. of 30 amp./ft.<sup>2</sup> at 85-90°F. for 3 min. The Al sheet was rinsed and the resin layer, which was unaffected by the plating soln. or treatment, was removed in 45 sec. by swabbing with a pad dipped in NH<sub>4</sub>OH soln. at a pH of 7.8. A similar result was obtained using the same resin film and a bath contg. Cu(BF<sub>4</sub>)<sub>2</sub>, HBF<sub>4</sub>, H<sub>3</sub>BO<sub>3</sub>, and H<sub>2</sub>O, and operated at **cathode** c.d. 35 amp./ft.<sup>2</sup>, **anode** c.d. 30 amp./ft.<sup>2</sup> and 85°F. at pH 1.4. The method was used for prepg. photomech. printing plates.

NCL 204015000

CC 42 (Coatings, Inks, and Related Products)

IT Coating materials

(acrylic polymers and oleic acid, on aluminum **cathodes**, acid-resistant)

IT 112-80-1, uses and miscellaneous

(acid resistance of aluminum **cathodes** coated with acrylic polymers and)

L34 ANSWER 18 OF 18 HCA COPYRIGHT 2004 ACS on STN  
67:59633 A new photographic process. Ville, Ivan B. (Eastman Kodak  
Co.). Fr. FR 1463471 19661223, 6 pp. (French). CODEN: FRXXAK.  
PRIORITY: US 19650122.

AB A neg. image with respect to the original is obtained by  
incorporating in the oily phase of the developer before  
emulsification,  $\geq 1$  dyes sol. in the oil, or even  $\geq 1$   
solid pigments. After photographic exposure of the photoconducting  
surface, followed by **electrolytic** development of the  
emulsion, the solvent contg. the dye or pigment is deposited on the  
exposed areas, and a neg. reproduction of the original image is  
obtained. The image thus obtained has a good mech. resistance  
because of the tendency of the solvent to diffuse into the  
photoconducting layer as soon as it is deposited on the surface. In  
order to obtain a pos. image with respect to the original, the  
conducting surface is 1st photographically exposed and then treated  
with the oily emulsion, contg. neither dye nor pigment. This  
treatment provokes on the photoconducting surface the deposit  
following an image of a visible or almost visible oily layer, which  
will act as a stencil in the course of final development designed to  
obtain the visible image. This treatment makes the exposed areas  
nonconducting while the nonexposed areas retain their  
photoconducting properties. The photoconducting layer is next  
uniformly exposed, and the development is effected by a developer  
which deposits on the areas still photoconductive a product forming  
a visible image (e.g., a dye or solid pigment, or a metal), and a  
pos. reproduction of the original is obtained. E.g., to a 1-1.  
Waring blender, 50 ml. of distd. H<sub>2</sub>O and 5 drops of a cationic  
**surface-active agent** are added, such as  
Catanac SP, and mixing is effected. Then there are quickly added,  
with the mixer kept at medium speed, a soln. of 5 ml. of  
1,1,2,2-tetrachloro-1,2-difluoroethane, 0.1 g. of Oil Black BT, and  
5 drops of Duomeen S., giving an emulsion of oil in H<sub>2</sub>O. The  
emulsion is dild. with distd. H<sub>2</sub>O so as to obtain proportions of 1:1  
and it is placed in the treatment machine. A photoconducting layer  
consisting of ZnO in a resin binder is placed in contact with a  
negative and it is exposed under a light of .apprx.5350 lumens. The  
layer is then developed in the photoconducting treatment app. at a  
speed of about 8 mm./sec. by causing a continuous current of 60 v.  
to flow between the **anode** and the exposed layer. The  
emulsion is stirred. This treatment causes the formation of a  
deposit of the Freon-Oil Black phase of the emulsion in the exposed  
areas of the layer and a proof whose values are neg. with respect to  
those of the original. A procedure is also described for the prepn.  
of a pos. proof with respect to the original.

IT 28984-69-2

(npo)

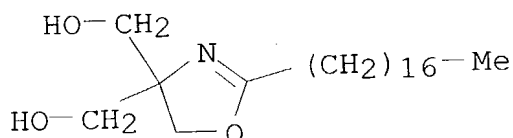
RN 28984-69-2 HCA

CN 4,4(5H)-Oxazoledimethanol, 2-(heptadecenyl)- (9CI) (CA INDEX NAME)

CM 1

CRN 14466-50-3

CMF C22 H43 N O3



IC G03C; G  
 CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 ST **ZINC** OXIDE DEVELOPMENT PROCESS; ELECTROPHOTOGRAPH DEVELOPMENT  
 PROCESS; **ELECTROLYTIC** DEVELOPMENT ELECTROPHOTOGRAPH; OIL WATER  
 EMULSION ELECTROPHOTOGRAPH  
 IT **28984-69-2**  
 (npo)

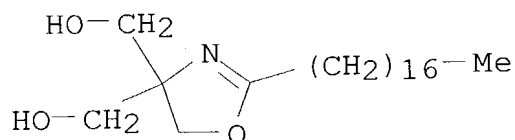
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L35 ANSWER 1 OF 16 HCA COPYRIGHT 2004 ACS on STN

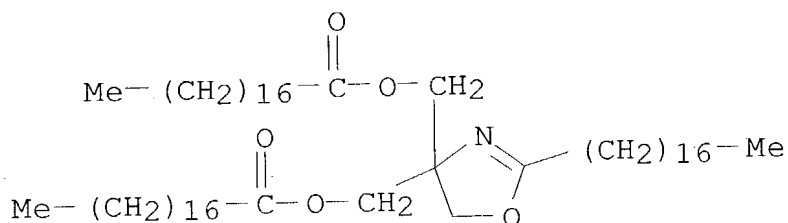
138:224578 Evaluation of three oxazolines as corrosion inhibitors by electrochemical techniques. Rodriguez, Saddys; Abreu, Asela; Cepero, Ana (Dpto. Corrosion, Centro Nacional de Investigaciones Cientificas, Havana, Cuba). Revista CENIC, Ciencias Quimicas, 33(2), 65-70 (Spanish) 2002. CODEN: RCCQER. ISSN: 1015-8553. Publisher: Centro Nacional de Investigaciones Cientificas.

AB The possible inhibitive effect of three compds. of the 2-oxazoline family, which were obtained by nonconventional chem. synthesis using microwaves, on corrosion of steel AISI 1020 in atm. conditions was assessed using modern electrochem. techniques (electrochem. impedance, polarization, polarization resistance, and potential vs. time). The compds. studied were: 2-benzyl-4,4-dihydroxymethyl-2-oxazoline (I), 2-heptadecenyl-4,4-bis(stearoyloximethyl)-2-oxazoline (II), and 2-heptadecenyl-4,4-dihydroxymethyl-2-oxazoline (III). The oxazolines were dissolved in basic oil at 70°C at different concns. The results showed the ability of that type of oxazoline compds. to adsorb on the metal surface. The oxazoline I dissolved in basic oil at 0.2% (wt./wt.) did not exhibit corrosion inhibitive characteristics. In the case of the oxazoline II at 2% (wt./wt.), a delay of atm. corrosion processes was obsd., whereas for the oxazoline III at concns. higher than 0.75% (wt./wt.), a decreasing steel corrosion rate took place. In the latter case, the action mechanism corresponded to that of a passivator.

IT 14466-50-3 15655-33-1  
 (evaluation of three oxazolines as corrosion inhibitors by  
 electrochem. techniques)  
 RN 14466-50-3 HCA  
 CN 4,4(5H)-Oxazoledimethanol, 2-heptadecyl- (9CI) (CA INDEX NAME)



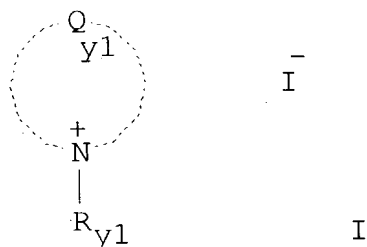
RN 15655-33-1 HCA  
 CN Octadecanoic acid, (2-heptadecyl-4(5H)-oxazolylidene)bis(methylene)  
 ester (9CI) (CA INDEX NAME)



CC 55-10 (Ferrous Metals and Alloys)  
 Section cross-reference(s): 72  
 IT 14466-50-3 15655-33-1 30969-75-6, Oxazoline  
 62203-32-1  
 (evaluation of three oxazolines as corrosion inhibitors by  
 electrochem. techniques)

L35 ANSWER 2 OF 16 HCA COPYRIGHT 2004 ACS on STN  
 134:134088 Photoelectric converters and photoelectrochemical cells.  
 Ono, Michio (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo  
 Koho JP 2001023705 A2 20010126, 35 pp. (Japanese). CODEN: JKXXAF.  
 APPLICATION: JP 1999-194713 19990708.

GI



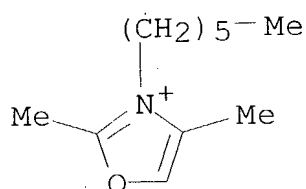
AB The photoelec. converters, useful as photoelectrochem. cells have a layer of fine semiconductor particles contg. adsorbed pigment on a conductive support, an **electrolyte** layer, and a counter **electrode**; where the semiconductor particle layer is 2-8  $\mu\text{m}$  thick, and the **electrolyte** layer contains  $\geq 50\%$  of a compd. having  $\text{I}^-$  ions. The compd. is preferably  $\text{I}^-$ , where  $\text{Qy1}$  = atoms forming a 5- or 6- membered ring cation with the N atom,  $\text{Ry1}$  = (substituted) alkyl or alkenyl groups, and the compd. may be a polymer having units connected through  $\text{Qy1}$  and/or  $\text{Ry1}$ .

IT 321742-69-2

(photoelectrochem cells contg. pigment sensitized titania particle layers and nitrogen contg. heterocyclic iodide **electrolytes**)

RN 321742-69-2 HCA

CN Oxazolium, 3-hexyl-2,4-dimethyl-, iodide (9CI) (CA INDEX NAME)



●  $\text{I}^-$

IC ICM H01M014-00

ICS H01L031-04

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

ST photoelectrochem cell **electrolyte** heterocyclic iodide compd

IT Photoelectrochemical cells

(photoelectrochem cells contg. pigment sensitized titania particle layers and nitrogen contg. heterocyclic iodide

**electrolytes)**

IT 1203-83-4 10291-06-2 13463-67-7, Titania, uses 65039-05-6  
 65065-20-5 80530-93-4 141460-19-7 174501-65-6 174899-66-2  
 174899-82-2 186088-50-6 187863-42-9 230307-78-5 233269-27-7  
 258279-38-8 263388-61-0 288627-69-0 288627-94-1  
**321742-69-2** 321742-70-5 321742-71-6 321742-73-8  
 321742-74-9 321742-75-0

(photoelectrochem cells contg. pigment sensitized titania  
 particle layers and nitrogen contg. heterocyclic iodide  
**electrolytes)**

L35 ANSWER 3 OF 16 HCA COPYRIGHT 2004 ACS on STN

133:61826 Evaluation of 2-oxazoline as corrosion inhibitor. Rodriguez, Saddys; Abreu y, Asela; Milian, Virgen (Corrosion, Centro Nacional de Investigaciones Cientificas, Ciudad de La Habana, Cuba). Revista CENIC, Ciencias Quimicas, 30(3), 178-181 (Spanish) 1999. CODEN: RCCQER. ISSN: 1015-8553. Publisher: Centro Nacional de Investigaciones Cientificas.

AB An study on effectiveness as corrosion inhibitor in atm. conditions of the 2-heptadecenyl-4,4-bis(hidroxymethyl)-2-oxazoline obtained by means of non-conventional chem. synthesis, using modern techniques of evaluation of inhibitors, which have not been reported for this kind of compds., was carried out. The method of non-conventional synthesis consisted in the employment of non-traditional energy sources, such as microwaves. This method has several advantages compared to the conventional ones such as: lower times for synthesis, no utilization of solvent, the obtaining of high yield of reaction and the last product free of sludge. For evaluation the 2-heptadecenyl-4,4-bis(hydroxymethyl)-2-oxazoline, was dissolved to several concns. (0.25; 0.5; 0.75; 1.0; 2.0; 5.0 %), in basic oil of viscosity 20 s·cm<sup>-1</sup> to 70 °C. These concns. were taken keeping in mind that this substance, to 100 ppm in mineral oil, offers high effectiveness. AISI-1020 steel and **electrolytic** iron 99.99% pure were used. Several test methods were used: accelerated (neutral salt spray chamber, SO<sub>2</sub> atmosphere, salinity immersion, heat-humidity chamber) and electrochem. (polarization curves and polarization resistance). The results defined the 2-heptadecenyl-4,4-bis(hidroxymethyl)-2-oxazoline obtained by means of no conventional chem. synthesis, as corrosion inhibitor of iron and its alloys dissolved in basic oil. An adjustment of the better concns. for their employment as corrosion inhibitor was also made.

IT **28984-69-2**

(2-heptadecenyl-4,4-bis(hydroxymethyl)-2-oxazoline as atm.  
 corrosion inhibitor for steel and iron)

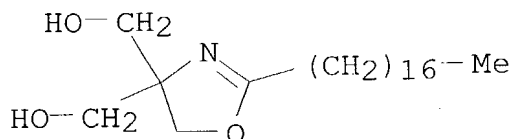
RN 28984-69-2 HCA

CN 4,4(5H)-Oxazoledimethanol, 2-(heptadecenyl)- (9CI) (CA INDEX NAME)



CM 1

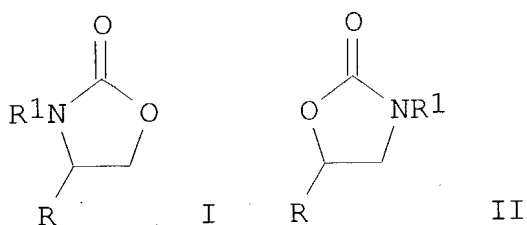
CRN 14466-50-3  
CMF C22 H43 N O3



CC 55-10 (Ferrous Metals and Alloys)  
IT 7439-89-6, Iron, processes 12725-36-9, processes  
**28984-69-2**  
(2-heptadecenyl-4,4-bis(hydroxymethyl)-2-oxazoline as atm.  
corrosion inhibitor for steel and iron)

L35 ANSWER 4 OF 16 HCA COPYRIGHT 2004 ACS on STN  
133:4611 Electrosynthesis of cyclic carbamates from aziridines and  
carbon dioxide. Tascedda, Patricia; Dunach, Elisabet (Lab. Chim.  
Bioorg., Associe CNRS, Universite de Nice-Sophia Antipolis, Nice,  
06108, Fr.). Chemical Communications (Cambridge) (6), 449-450  
(English) 2000. CODEN: CHCOFS. ISSN: 1359-7345. OTHER SOURCES:  
CASREACT 133:4611. Publisher: Royal Society of Chemistry.

GI



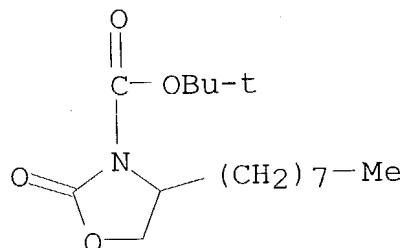
AB A new and selective synthesis of five-membered ring cyclic  
carbamates (I, II; R = Et, octyl, Ph, BuOCH<sub>2</sub>; R<sup>1</sup> = BOC, H) involving  
nickel-catalyzed CO<sub>2</sub> incorporation into aziridines under mild  
electrochem. conditions was carried out in good yields.

IT **270063-89-3P 270063-93-9P**  
(electrosynthesis of cyclic carbamates from aziridines and carbon  
dioxide)

RN 270063-89-3 HCA

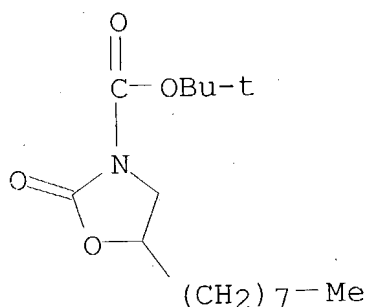
CN 3-Oxazolidinecarboxylic acid, 4-octyl-2-oxo-, 1,1-dimethylethyl

ester (9CI) (CA INDEX NAME)



RN 270063-93-9 HCA

CN 3-Oxazolidinecarboxylic acid, 5-octyl-2-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



CC 28-6 (Heterocyclic Compounds (More Than One Hetero Atom))  
Section cross-reference(s): 72

IT 7480-32-2P 7693-77-8P 113525-79-4P 270063-88-2P  
270063-89-3P 270063-90-6P 270063-91-7P 270063-92-8P  
270063-93-9P 270063-94-0P  
(electrosynthesis of cyclic carbamates from aziridines and carbon dioxide)

L35 ANSWER 5 OF 16 HCA COPYRIGHT 2004 ACS on STN

132:253557 **Electrolytes** and photoelectrochemical **cells**

. Takisawa, Hiroo (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai  
Tokkyo Koho JP 2000100485 A2 20000407, 41 pp. (Japanese). CODEN:  
JKXXAF. APPLICATION: JP 1998-285947 19980922.

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The **electrolytes** contain a non-crosslinked polymer of

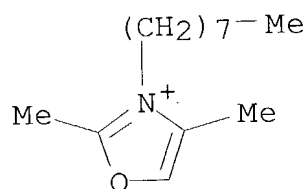
formula:  $-[\text{CH}_2\text{CR}_1(\text{D})\text{dR}_2]\text{a}[\text{CH}_2\text{CR}_3(\text{E})\text{eR}_4]\text{b}(\text{A})\text{c}-$ , in which  $\text{R}_1$  and  $\text{R}_3 = \text{H}$ , alkyl, or aryl groups,  $\text{R}_2 =$  substituent contg. quaternary salt of N-contg. heterocyclic ring or quaternary ammonium salt,  $\text{R}_4 =$  substituent contg. N contg. heterocyclic ring or tertiary amine group,  $\text{D}$  and  $\text{E}$  are connection groups,  $\text{d}$  and  $\text{e}$  are 0 or 1,  $\text{A} =$  repeating units contg. ethylenic unsatn. group,  $\text{a}$ ,  $\text{b}$ , and  $\text{c}$  are wt compns. of the resp. repeating units and equal to 1-100, 0-99, and 0-80%, resp. The **electrolytes** may also contain I (Z1 forms a 5- or 6-membered ring cation with N,  $\text{R}_{51} =$  alkyl or alkenyl group,  $\text{f} = 1$  or 3), esp. II ( $\text{R}_{52} =$  substituent,  $\text{g} = 0-5$ ) and III ( $\text{G} = \text{O}$ , S, or  $-\text{NR}_{54}$ ,  $\text{R}_{54} =$  substituent,  $\text{R}_{53} =$  substituent,  $\text{c} = 0-3$ ). The photoelectrochem. cells have a charge transferring layer contg. the above **electrolyte**, an illumination sensitive semiconductor, and a counter **electrode**.

IT 258273-68-6

(**electrolytes** contg. non-crosslinked polymers for photoelectrochem. cells)

RN 258273-68-6 HCA

CN Oxazolium, 2,4-dimethyl-3-octyl-, iodide (9CI) (CA INDEX NAME)

● I<sup>-</sup>

IC ICM H01M014-00

ICS C08F008-44; C08F026-06; H01L031-04

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

ST photoelectrochem cell electrolyte noncrosslinked ethylenic polymer

IT **Electrolytes**

Photoelectrochemical cells

(**electrolytes** contg. non-crosslinked polymers for photoelectrochem. cells)

IT 311-28-4, Tetrabutylammonium iodide 874-81-7 10377-51-2, Lithium iodide 27029-44-3 32353-64-3 60300-54-1 65039-05-6

178631-05-5 204854-22-8 258273-67-5 **258273-68-6**

258279-35-5 258279-38-8 262424-60-2 262424-62-4 262424-66-8

262424-69-1 262424-72-6 262424-74-8 262424-76-0 262424-78-2

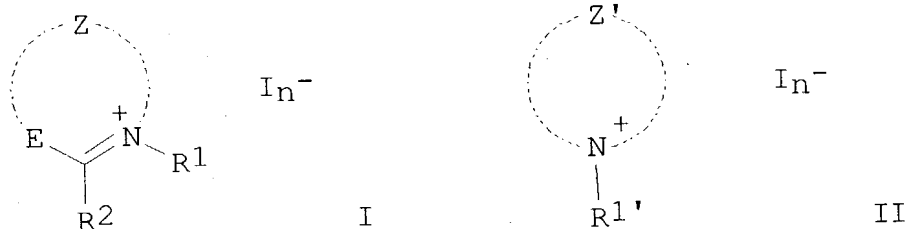
(**electrolytes** contg. non-crosslinked polymers for

photoelectrochem. cells)

L35 ANSWER 6 OF 16 HCA COPYRIGHT 2004 ACS on STN

132:154402 Organic **electrolyte** for a photoelectrochemical cell. Takizawa, Hiroo; Shiratsuchi, Kentaro (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 980082 A2 20000216, 55 pp.  
 DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-115684 19990809. PRIORITY: JP 1998-239482 19980811; JP 1998-239483 19980811.

GI

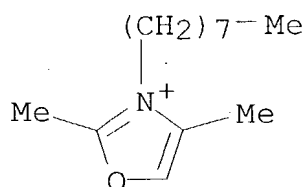


AB An **electrolyte** contg. a 5- or 6-membered nitrogen-contg. arom. ring compd. having a specific structure represented by formula (I) or (II) and a photoelectrochem. **cell** having the **electrolyte** are disclosed. The **electrolyte** hardly volatilizes and performs an excellent charge transport function to provide a photoelectrochem. cell having excellent photoelec. characteristics and durability. In I, Z represents an at. group necessary to form a 5-membered arom. ring cation together with the nitrogen atom and E; E represents an oxygen atom or a sulfur atom; R1 represents an alkyl group or an alkenyl group; R2 represents a hydrogen atom or a substituent; and n represents 1 or 3. In II, Z' represents an at. group necessary to form a 6-membered arom. ring cation together with the nitrogen atom; R1' represents an alkyl group or an alkenyl group; and a' represents 1 or 3.

IT 258273-68-6 258279-13-9  
 (org. **electrolyte** for photoelectrochem. **cell**)

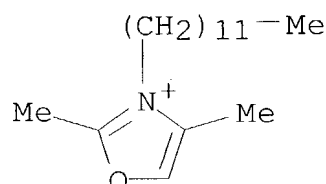
RN 258273-68-6 HCA

CN Oxazolium, 2,4-dimethyl-3-octyl-, iodide (9CI) (CA INDEX NAME)



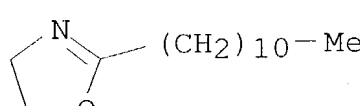
● I<sup>-</sup>

RN 258279-13-9 HCA  
 CN Oxazolium, 3-dodecyl-2,4-dimethyl-, iodide (9CI) (CA INDEX NAME)



● I<sup>-</sup>

IC ICM H01G009-20  
 ICS H01M006-16; H01M010-40  
 CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)  
 Section cross-reference(s): 38  
 ST photoelectrochem **cell** org **electrolyte**; dye  
 sensitized semiconductor photoelectrochem cell; solar  
 photoelectrochem **cell** org **electrolyte**  
 IT **Electrolytes**  
 Photoelectrochemical **cells**  
 (org. **electrolyte** for photoelectrochem. **cell**)  
 IT 12243-46-8 80530-93-4 99837-92-0 110067-66-8 141460-19-7  
 171119-27-0 219727-04-5 220870-47-3 230307-80-9 233269-24-4  
 258280-43-2  
 (dye; org. **electrolyte** for photoelectrochem. **cell**)  
 IT 874-81-7 10291-06-2 13463-67-7, Titania, uses 53242-40-3  
 70845-49-7 258273-67-5 258279-26-4 258279-32-2 258279-35-5  
 258279-38-8 258279-41-3 258279-44-6 258279-47-9  
 (org. **electrolyte** for photoelectrochem. **cell**)

- IT 258273-68-6 258279-09-3 258279-11-7 258279-13-9  
258279-17-3 258279-22-0  
(org. **electrolyte** for photoelectrochem. **cell**)
- IT 75-05-8, Acetonitrile, uses 4743-28-6 10123-62-3 19836-78-3  
(solvent; org. **electrolyte** for photoelectrochem. **cell**)
- L35 ANSWER 7 OF 16 HCA COPYRIGHT 2004 ACS on STN  
130:299385 Lithium **batteries** and their manufacture.  
Kurematsu, Kazuhiko (Japan). Jpn. Kokai Tokkyo Koho JP 11121038 A2  
19990430 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP  
1997-303685 19971017.
- AB The **batteries** have an ultrafine microporous polyolefin  
film, whose surface is modified by dipping in a 0.01-10% polymer  
**electrolyte** soln. for 0.5-3 h. The films are preferably  
used as separators in the **batteries**. The  
**batteries** are prep'd. by surface modifying the microporous  
film with the polymer **electrolyte** soln.
- IT 10431-84-2  
(in manuf. of ultrafine porous polyolefin separators with  
poly(ethylene oxide) treated surface for secondary lithium  
**batteries**)
- RN 10431-84-2 HCA  
CN Oxazole, 4,5-dihydro-2-undecyl- (9CI) (CA INDEX NAME)
-  (CH<sub>2</sub>)<sub>10</sub>-Me
- IC ICM H01M010-40  
ICS H01M010-40; H01M002-16; H01M006-18; H01M006-22
- CC 52-2 (Electrochemical, Radiational, and Thermal Energy  
Technology)
- ST lithium **battery** separator polymer **electrolyte**  
polyolefin
- IT Secondary **battery** separators  
(ultrafine porous polyolefin separators with poly(ethylene oxide)  
treated surface for secondary lithium **batteries**)
- IT Polyoxyalkylenes, uses  
(ultrafine porous polyolefin separators with poly(ethylene oxide)  
treated surface for secondary lithium **batteries**)
- IT 10431-84-2 28118-26-5,  $\gamma$ -Aminopropoxy  
triethoxysilane  
(in manuf. of ultrafine porous polyolefin separators with  
poly(ethylene oxide) treated surface for secondary lithium  
**batteries**)
- IT 9003-07-0, Polypropylene

(ultrafine porous polyolefin separators with poly(ethylene oxide) treated surface for secondary lithium **batteries**)

IT 25322-68-3, Poly(ethylene oxide)  
(ultrafine porous polyolefin separators with poly(ethylene oxide) treated surface for secondary lithium **batteries**)

L35 ANSWER 8 OF 16 HCA COPYRIGHT 2004 ACS on STN

120:269878 On the syntheses of branched saturated fatty acids.  
Gronowitz, Salo; Klingstedt, Tomas; Svensson, Leif; Hansson, Ulf  
(Chem. Cent., Univ. Lund, Lund, Swed.). Lipids, 28(10), 889-97  
(English) 1993. CODEN: LPDSAP. ISSN: 0024-4201. OTHER SOURCES:  
CASREACT 120:269878.

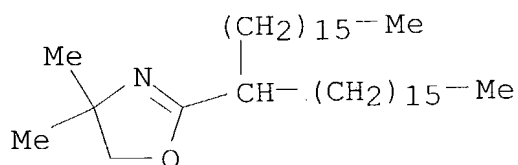
AB To investigate the relation between the structure of mono-branched satd. fatty acids and their phys. properties, a three-factor central composite design was constructed. Sixteen different fatty acids were prepd., generally from a few common starting materials. Thus alkylation and hydrolysis of oxazolines were used for the prepn. of 2-butylhexanoic acid, 2-methyloctadecanoic acid, 2-hexadecyloctadecanoic acid and 2-pentyloctadecanoic acid. Some acids were prepd. from thiophene derivs. followed by desulfurization with Raney-Nickel alloy under alk. conditions. Thus, starting from 3-ethylthiophene, 4-ethyl-2-thiophenecarboxylic acid and 4-ethyl-2-methyl-5-thiophenecarboxylic acid were prepd., which upon desulfurization gave the desired 4-methylhexanoic acid. 3-Bromo-2-methylthiophene gave 3-ethyl-2-methyl-5-thiophenecarboxylic acid via 3-acetyl-2-methylthiophene and 3-ethyl-2-methylthiophene. Desulfurization gave 4-ethylhexanoic acid. Treating 2-acylthiophenes with Grignard reagents gave the appropriate olefins, whose metalation and reaction with carbon dioxide gave the corresponding 2-thiophenecarboxylic acids.. This method gave 6-propyldecanoic acid, 6-hexyldodecanoic acid, 6-methyldodecanoic acid and 6-pentylpentadecanoic acid. The remaining four acids were prepd. from some of the branched acids described above through Kolbe reactions of dioic acids. Thus 16-methyloctadecanoic acid and 10-methyldodecanoic acid were obtained from 4-methylhexanoic acid, 16-ethyloctadecanoic acid from 4-ethylhexanoic acid and 9-pentyloctadecanoic acid from 6-pentylpentadecanoic acid.

IT 89547-13-7P 122055-61-2P 154828-59-8P  
154828-60-1P 154828-61-2P 154828-62-3P

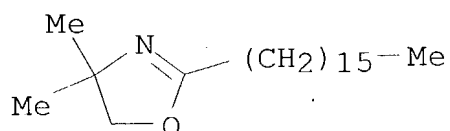
(prepn. and conversion of, to branched satd. fatty acids)

RN 89547-13-7 HCA

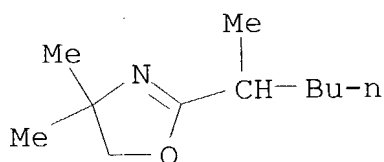
CN Oxazole, 2-(1-hexadecylheptadecyl)-4,5-dihydro-4,4-dimethyl- (9CI)  
(CA INDEX NAME)



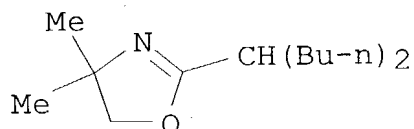
RN 122055-61-2 HCA  
 CN Oxazole, 2-hexadecyl-4,5-dihydro-4,4-dimethyl- (9CI) (CA INDEX NAME)



RN 154828-59-8 HCA  
 CN Oxazole, 4,5-dihydro-4,4-dimethyl-2-(1-methylpentyl)- (9CI) (CA INDEX NAME)

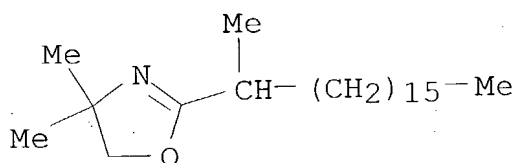


RN 154828-60-1 HCA  
 CN Oxazole, 2-(1-butylpentyl)-4,5-dihydro-4,4-dimethyl- (9CI) (CA INDEX NAME)

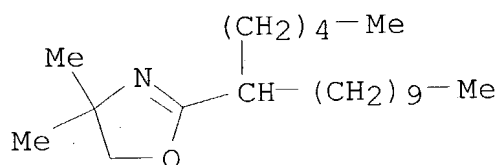


RN 154828-61-2 HCA  
 CN Oxazole, 4,5-dihydro-4,4-dimethyl-2-(1-methylheptadecyl)- (9CI) (CA INDEX NAME)





RN 154828-62-3 HCA  
 CN Oxazole, 4,5-dihydro-4,4-dimethyl-2-(1-pentylundecyl)- (9CI) (CA  
 INDEX NAME)



CC 26-3 (Biomolecules and Their Synthetic Analogs)  
 IT Fatty acids, preparation  
 (satd., branched, prepn. of, via oxazolines, thiophenes, and  
 Kolbe **electrolysis** of dioic acids)  
 IT 1501-27-5, Pentanedioic acid monomethyl ester 14113-01-0,  
 Octanedioic acid monoethyl ester 50515-99-6, Tetradecanedioic acid  
 monomethyl ester  
 (**electrolysis** of, in prepn. of branched satd. fatty  
 acids)  
 IT 5146-88-3P 55011-28-4P 74090-21-4P **89547-13-7P**  
**122055-61-2P 154828-59-8P 154828-60-1P**  
**154828-61-2P 154828-62-3P**  
 (prepn. and conversion of, to branched satd. fatty acids)

L35 ANSWER 9 OF 16 HCA COPYRIGHT 2004 ACS on STN  
 119:56813 Transmembrane potential of artificial vesicles. Vesicle  
 fragmentation. Encapsulation. Faure, J.; Pansu, R.; Roncin, J.;  
 Liu, L. (Univ. Paris Sud, Orsay, F-91405, Fr.). Electron Spin  
 Reson. (ESR) Appl. Org. Bioorg. Mater., Proc. Eur. Meet., 1st,  
 Meeting Date 1990, 69-75. Editor(s): Catoire, B. Springer: Berlin,  
 Germany. (French) 1992. CODEN: 58ZTAV.

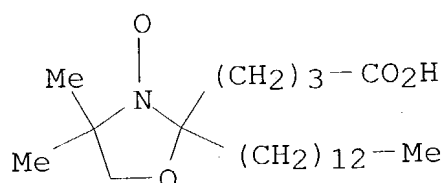
AB The membrane potential was studied for dioctadecyldimethylammonium  
 chloride and dihexadecyl phosphate vesicles prepd. by sonication by  
 using a rotating Pt **electrode**. The behavior of the  
 fragments produced by sonication was monitored by using nitroxide  
 luminescent probes. The membrane fragments apparently take part in  
 a cooperative phase transition; eventually, a population of  
 monodisperse vesicles appears.

IT 29545-48-0

(luminescent probe, in vesicle fragmentation study)

RN 29545-48-0 HCA

CN 3-Oxazolidinyloxy, 2-(3-carboxypropyl)-4,4-dimethyl-2-tridecyl-  
(8CI, 9CI) (CA INDEX NAME)



CC 66-2 (Surface Chemistry and Colloids)  
Section cross-reference(s): 6, 72

IT 29545-48-0 53034-38-1 72185-36-5  
(luminescent probe, in vesicle fragmentation study)

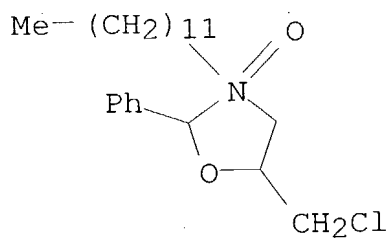
L35 ANSWER 10 OF 16 HCA COPYRIGHT 2004 ACS on STN  
118:72860 Polarographic determination of N-oxides of 2-substituted  
3-alkyl-5-chloromethyloxazolidines. Konigstein, J.; Steiner, B.  
(Inst. Chem., Slovak Acad. Sci., Bratislava, CS-842 38, Czech.).  
Chemical Papers, 46(1), 28-30 (English) 1992. CODEN: CHPAEG. ISSN:  
0366-6352.

AB A set of selected amine oxides of 2-substituted 3-alkyl-5-  
chloromethyloxazolidines was studied by d.c. polarog.  
**Cathodic** waves corresponding to their two-electron polarog.  
redn. to the initial oxazolidines were followed. Detns. were in aq.  
medium using Britton-Robinson buffers at pH 8 in the concn. range  
0.01-1.00 mmol dm<sup>-3</sup> of amine oxides. They were controlled by  
acidimetric potentiometric titrns. The method is suitable for detn.  
of the functional anal. group of amine oxides of oxazolidines with  
an alkyl in the 3- position. Observation of the course of amine  
oxides syntheses by oxidn. of oxazolidines with H<sub>2</sub>O<sub>2</sub> is enabled.  
Hydrogen peroxide and formed addn. products are polarog. sepd. and  
determinable.

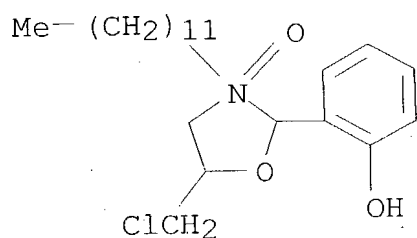
IT 119086-49-6 119086-50-9 130787-54-1  
130787-57-4 130787-62-1 130787-63-2  
131716-55-7 145690-59-1 145690-60-4  
(detn. of, by polarog.)

RN 119086-49-6 HCA

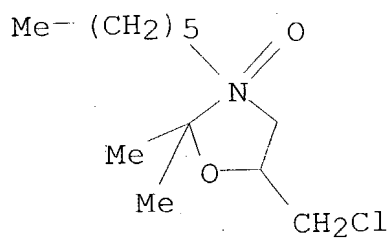
CN Oxazolidine, 5-(chloromethyl)-3-dodecyl-2-phenyl-, 3-oxide (9CI)  
(CA INDEX NAME)



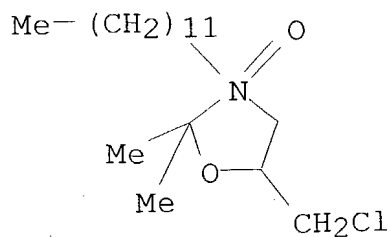
RN 119086-50-9 HCA  
 CN Phenol, 2-[5-(chloromethyl)-3-dodecyl-3-oxido-2-oxazolidinyl]- (9CI)  
 (CA INDEX NAME)



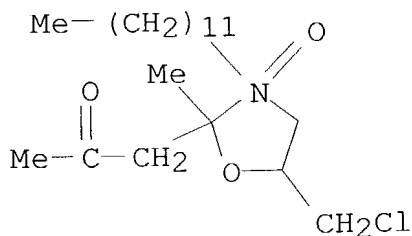
RN 130787-54-1 HCA  
 CN Oxazolidine, 5-(chloromethyl)-3-hexyl-2,2-dimethyl-, 3-oxide (9CI)  
 (CA INDEX NAME)



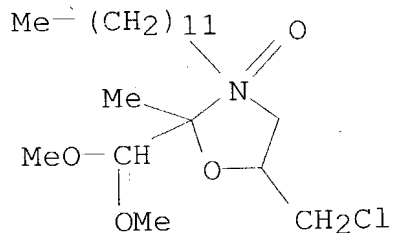
RN 130787-57-4 HCA  
 CN Oxazolidine, 5-(chloromethyl)-3-dodecyl-2,2-dimethyl-, 3-oxide (9CI)  
 (CA INDEX NAME)



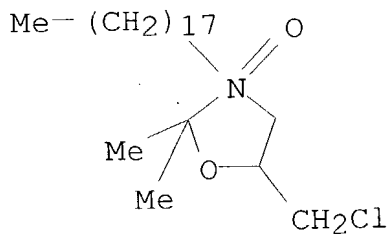
RN 130787-62-1 HCA  
 CN 2-Propanone, 1-[5-(chloromethyl)-3-dodecyl-2-methyl-3-oxido-2-oxazolidinyl]- (9CI) (CA INDEX NAME)



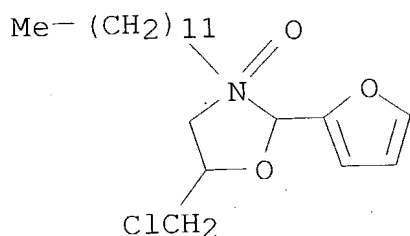
RN 130787-63-2 HCA  
 CN Oxazolidine, 5-(chloromethyl)-2-(dimethoxymethyl)-3-dodecyl-2-methyl-, 3-oxide (9CI) (CA INDEX NAME)



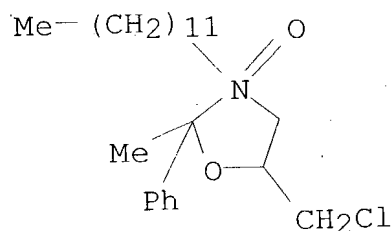
RN 131716-55-7 HCA  
 CN Oxazolidine, 5-(chloromethyl)-2,2-dimethyl-3-octadecyl-, 3-oxide (9CI) (CA INDEX NAME)



RN 145690-59-1 HCA  
 CN Oxazolidine, 5-(chloromethyl)-3-dodecyl-2-(2-furanyl)-, 3-oxide (9CI) (CA INDEX NAME)



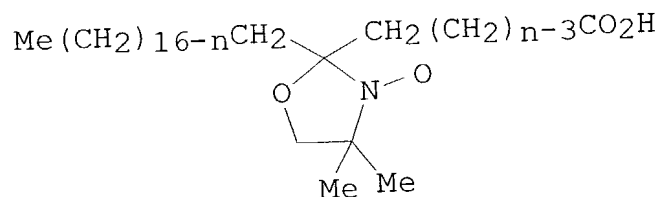
RN 145690-60-4 HCA  
 CN Oxazolidine, 5-(chloromethyl)-3-dodecyl-2-methyl-2-phenyl-, 3-oxide  
 (9CI) (CA INDEX NAME)



CC 80-6 (Organic Analytical Chemistry)  
 Section cross-reference(s): 28, 72  
 IT 119086-49-6 119086-50-9 130787-54-1  
 130787-57-4 130787-62-1 130787-63-2  
 131716-55-7 145690-59-1 145690-60-4  
 (detn. of, by polarog.)

L35 ANSWER 11 OF 16 HCA COPYRIGHT 2004 ACS on STN  
 116:29973 Langmuir-Blodgett films of doxylstearic acids: cyclic  
 voltammetry. Richardson, T.; Roberts, G. G.; Barghout, R.; Compton,  
 R. G.; Riley, D. J. (Dep. Eng. Sci., Oxford Univ., Oxford, OX1 3PJ,  
 UK). Electroanalysis, 3(8), 757-62 (English) 1991. CODEN: ELANEU.  
 ISSN: 1040-0397.

GI

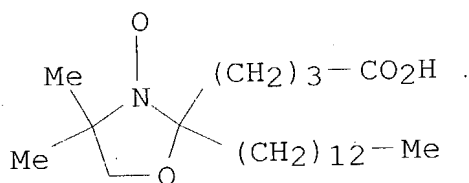


AB The electrochem. oxidn. of Langmuir-Blodgett films of n-doxylstearates (I, n = 5, 7, 12, 16; present as their cadmium salts) on indium tin oxide **electrodes** was studied. The n = 12 species gives cyclic voltammograms (CVs) that reveal split peaks consistent with the formation of an ordered partially oxidized layer with a structure controlled by interactions of longer range than nearest neighbor.

IT **29545-48-0 40951-82-4**  
(oxidn. of Langmuir-Blodgett films of, electrochem., on indium tin oxide in sodium sulfate soln.)

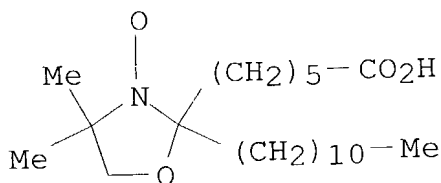
RN 29545-48-0 HCA

CN 3-Oxazolidinyloxy, 2-(3-carboxypropyl)-4,4-dimethyl-2-tridecyl-  
(8CI, 9CI) (CA INDEX NAME)



RN 40951-82-4 HCA

CN 3-Oxazolidinyloxy, 2-(5-carboxypentyl)-4,4-dimethyl-2-undecyl- (9CI)  
(CA INDEX NAME)

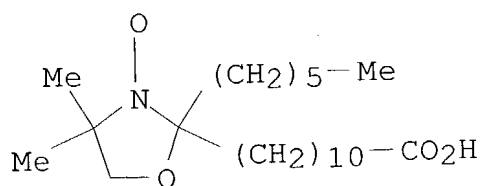


IT **29545-47-9**

(oxidn. of Langmuir-Blodgett films of, on indium tin oxide in sodium sulfate soln., order in relation to)

RN 29545-47-9 HCA

CN 3-Oxazolidinyloxy, 2-(10-carboxydecyl)-2-hexyl-4,4-dimethyl- (8CI, 9CI) (CA INDEX NAME)



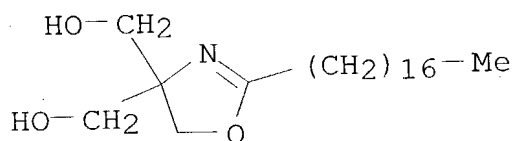
- CC 72-2 (Electrochemistry)  
Section cross-reference(s): 66, 78
- IT Molecular orientation  
(of doxylstearate on indium tin oxide **electrode**)
- IT 50926-11-9, Indium tin oxide  
(**electrode**, oxidn. of doxylstearate Langmuir-Blodgett films on, in sodium sulfate soln., order in relation to)
- IT 29545-48-0 40951-82-4 53034-38-1  
(oxidn. of Langmuir-Blodgett films of, electrochem., on indium tin oxide in sodium sulfate soln.)
- IT 29545-47-9  
(oxidn. of Langmuir-Blodgett films of, on indium tin oxide in sodium sulfate soln., order in relation to)
- L35 ANSWER 12 OF 16 HCA COPYRIGHT 2004 ACS on STN  
107:179580 Emulsion explosive composition. Cooper, John; Kirby, Ian John (Imperial Chemical Industries PLC, UK). Brit. UK Pat. Appl. GB 2181725 A1 19870429, 10 pp. (English). CODEN: BAXXDU.  
APPLICATION: GB 1986-20253 19860820. PRIORITY: GB 1985-23127 19850919; GB 1986-1370 19860121.
- AB The quality of emulsion explosive compns. comprising a discontinuous phase having an O-supplying component and an org. medium forming a continuous phase is improved by a manufg. process and app. in which a predetd. range of acceptable values for an elec. characteristic (e.g., elec. cond. or capacitance) of the explosive is established, the selected property is detd., and, in response to measured properties outside of the range, the unacceptable compn. is diverted or modified to fall within the preferred range. A mixt. of 78.7 NH<sub>4</sub>NO<sub>3</sub> and 16.0 parts water, heated to 85°, was rapidly stirred into a soln. of 1.5 sorbitan monooleate and 3.8 parts paraffin oil. The elec. capacitance of emulsion samples was detd. in a closed flat cell comprising a pair of stainless steel **electrodes** (each with surface area 10 cm<sup>2</sup>) spaced 3 mm apart. The capacitance, which was correlated with the emulsion droplet size, was a better means of quality control than optical microscopic examn. Compns. with decreased emulsion droplet size generally have increased sensitivity and improved storage stability.
- IT 28984-69-2  
(explosives contg., quality control in manuf. of emulsion, elec.

property detn. and correlation for)

RN 28984-69-2 HCA  
CN 4,4(5H)-Oxazoledimethanol, 2-(heptadecenyl)- (9CI) (CA INDEX NAME)

CM 1

CRN 14466-50-3  
CMF C22 H43 N O3



IC ICM C06B045-00  
CC 50-2 (Propellants and Explosives)  
IT 108-30-5D, polyisobutenyl derivs., polymers with ethanolamine  
141-43-5D, polymers with polyisobutenylsuccinic anhydride  
1338-43-8, Sorbitan monooleate 6484-52-2, Ammonium nitrate, uses  
and miscellaneous **28984-69-2**  
(explosives contg., quality control in manuf. of emulsion, elec.  
property detn. and correlation for)

L35 ANSWER 13 OF 16 HCA COPYRIGHT 2004 ACS on STN

97:52035 Microenvironmental effects on transition energies and effective polarities of nitroxides solubilized in micelles of different charge types and the effect of **electrolytes** on the visible spectra of nitroxides in aqueous solutions. Ramachandran, C.; Pyter, Richard A.; Mukerjee, Pasupati (Sch. Pharm., Univ. Wisconsin, Madison, WI, 53706, USA). Journal of Physical Chemistry, 86(16), 3198-205 (English) 1982. CODEN: JPCHAX. ISSN: 0022-3654.

AB Exptl. results on nitroxides in micellar solns. are presented, and some methods of interpretation of such results are described which should be generally applicable to spectroscopic probe studies. Some data indicate that the addn. of inorg. **electrolytes** increases the energy of transition (ET) value of 2,2,6,6-tetramethylpiperidiny-1-oxy (TEMPO) in water. This increase in apparent polarity is attributed to a cation effect causing increased H bonding through the electrostatic influence of cations on the surrounding water mols. A spectral parameter based on the ratio of absorbances at 2 fixed wavelengths can be used to assess the av. polarities of the microenvironments of nitroxides solubilized in micelles, but appropriate corrections must be made for micelle-water distributions of the nitroxides. Based on the dielec. consts. of the ref. solvents as medium polarity parameters, the microenvironmental polarity in the solubilized state is expressed as an effective dielec. const.,  $\epsilon_{eff}$ . The corresponding



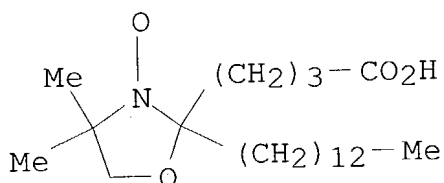
changes in ET from aq. solns. to the solubilized state ( $\Delta ET$ ) were in the range of 2-3 kcal/mol. The  $Deff$  and  $\Delta ET$  values of TEMPO indicate that its microenvironments in the micelle are moderately polar. The results are consistent with a predominant location of TEMPO at the micelle-water interface. The  $Deff$  values of interfacially located TEMPO are roughly midway between the values of water and dodecane in all of the micellar systems. Electrostatic image interactions of the nitroxide dipoles at the interface caused by the proximity of the hydrocarbon cores provide a qual. explanation of the general finding. Further anal. indicates that the image interactions on the H-bonded nitroxide complex may be important and that the net effect of H bonding interactions may be significantly weaker at interfaces when compared to bulk water. The  $Deff$  and  $\Delta ET$  values in different micellar systems of different charge types vary over a small range, consistent with the effects expected from field strengths on the order of  $2 \times 10^6$  V/cm in the interface region of ionic micelles, with some addnl. effects due to cations at the surface of anionic micelles. A micelle with zwitterionic head groups similarly shows the effect of the expected dipole field at the interface. For palmitoyllyssolecithin, the effect of the zwitterionic moiety appears to be small because of its distance from the hydrocarbon core. Solubilized 4-oxo-2,2,6,6-tetramethylpiperidiny-1-oxy and 2 long-chain stearic acid derivs. contg. a nitroxide moiety at different positions along the alkyl chain indicate  $Deff$  values similar to those of TEMPO in 2 micellar systems. A quaternary ammonium nitroxide deriv., however, shows a significantly lower  $Deff$  value in anionic micelles. These data were interpreted in terms of interfacial locations of the nitroxides involving different orientations in some cases.

IT 29545-48-0

(in micelles and aq. solns., microenvironmental and electrolyte effects on properties of)

RN 29545-48-0 HCA

CN 3-Oxazolidinyloxy, 2-(3-carboxypropyl)-4,4-dimethyl-2-tridecyl-  
(8CI, 9CI) (CA INDEX NAME)



CC 9-5 (Biochemical Methods)

Section cross-reference(s): 6

ST nitroxide property micelle aq soln; transition energy nitroxide micelle; polarity nitroxide micelle; visible spectra nitroxide

- electrolyte**
- IT Nitroxides  
(in micelles and aq. solns., microenvironmental and  
**electrolytes** effects on properties of)
- IT Anions  
Cations  
**Electrolytes**  
(nitroxide properties in aq. solns. response to)
- IT Ultraviolet and visible spectra  
(of nitroxides, **electrolytes** effect on)
- IT 2564-83-2 2896-70-0 **29545-48-0** 53034-38-1 64525-01-5  
(in micelles and aq. solns., microenvironmental and  
**electrolyte** effects on properties of)

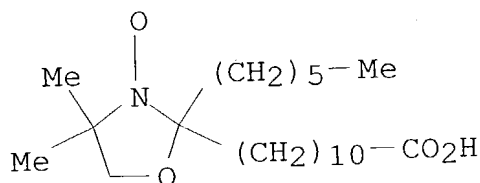
L35 ANSWER 14 OF 16 HCA COPYRIGHT 2004 ACS on STN  
88:46911 Electron spin resonance studies on the lipooxygenase reaction by  
spin trapping and spin labeling methods. Aoshima, Hitoshi;  
Kajiwara, Tadahiko; Hatanaka, Akikazu; Hatano, Hiroyuki (Fac. Lib.  
Arts, Yamaguchi Univ., Yamaguchi, Japan). Journal of Biochemistry  
(Tokyo, Japan), 82(6), 1559-65 (English) 1977. CODEN: JOBIAO.  
ISSN: 0021-924X.

AB The rate of oxygenation and that of trapping linoleic acid (I) free  
radicals in the lipooxygenase (II) reaction were measured in the  
presence of I, O, and nitrosobenzene (III) at various concns., with  
a Clark O **electrode** and ESR spectroscopy. The results  
were interpreted under the assumption that the free radical of I, an  
intermediate of the II reaction, reacts competitively with O or III.  
The oxidn. of the Fe in the active site of II caused by the spin  
label reagent, 2-(10-carboxydecyl)-2-hexyl-4,4-dimethyl-3-  
oxazolidinyloxy, was also obsd. by ESR and fluorescence  
spectroscopy.

IT **29545-47-9**  
(lipooxygenase spin labeling with)

RN 29545-47-9 HCA

CN 3-Oxazolidinyloxy, 2-(10-carboxydecyl)-2-hexyl-4,4-dimethyl- (8CI,  
9CI) (CA INDEX NAME)



CC 7-4 (Enzymes)

IT **29545-47-9**  
(lipooxygenase spin labeling with)

L35 ANSWER 15 OF 16 HCA COPYRIGHT 2004 ACS on STN

67:35496 Protection of steel sheets against rust. Shimada, Shoji  
(Yawata Iron and Steel Co., Ltd.). Fr. FR 1454489 19661007, 4 pp.  
(French). CODEN: FRXXAK. APPLICATION: FR 19650824.

AB Steel sheets used as bases in hot or **electrolytic** plating  
operations are protected against rust by applying 0.5-5 g./base box  
of a thin film comprising at least one aliphatic or alicyclic  
primary and secondary amines, alkyl imidazolines, alkyl imidazoles,  
alkyl oxazolines, and alkyl oxazoles contg. <20 C atoms. Thus, a  
base for Sn **electrolytic** plating was coated by spraying  
with 1-30 g./base box of 2-undecylimidazole maintained at 60°  
and was then coiled. The treated steel sheet did not rust after  
being stored in the usual manner for 8 months. The steel sheet was  
submitted to an **electrolytic** plating without any plating  
defects.

IT 29249-56-7

(corrosion prevention by, of steel sheet for tin  
electrodeposition)

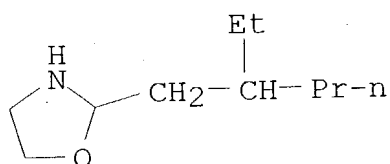
RN 29249-56-7 HCA

CN Oxazoline, 2-(2-ethylpentyl)- (8CI) (CA INDEX NAME)

CM 1

CRN 46119-09-9

CMF C10 H21 N O



IC C23F

CC 55 (Ferrous Metals and Alloys)

IT 101-83-7 124-22-1 10443-61-5 16731-68-3 29249-56-7  
29249-57-8

(corrosion prevention by, of steel sheet for tin  
electrodeposition)

L35 ANSWER 16 OF 16 HCA COPYRIGHT 2004 ACS on STN

56:3138 Original Reference No. 56:639d-e Motor-fuel additive. (Standard  
Oil Co.). GB 846231 19590112 (Unavailable). PRIORITY: US 19580226.

AB The addn. of substituted oxazolines, such as 2-heptadecenyl-4,4-  
bis(hydroxymethyl)oxazoline, to gasoline reduces surface ignition  
and carburetor fouling and icing.

IT 28984-69-2, 2-Oxazoline-4,4-dimethanol, 2-(heptadecenyl)-

(as gasoline additive)

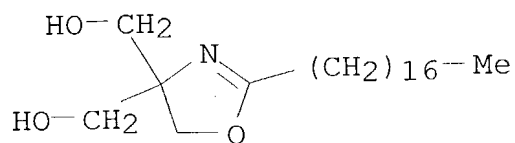
RN 28984-69-2 HCA

CN 4,4(5H)-Oxazoledimethanol, 2-(heptadecenyl)- (9CI) (CA INDEX NAME)

CM 1

CRN 14466-50-3

CMF C22 H43 N O3



CC 52 (Petroleum and Petroleum Derivatives)

IT 28984-69-2, 2-Oxazoline-4,4-dimethanol, 2-(heptadecenyl)-  
(as gasoline additive)